KPR-S53SN1
RM-821

SONY
SERVICE MANUAL

Australian Model
Serial No. 9,000,001 and later
Chassis No. SCC-F74A-A

☛ : Indicates changed portion

COVER

SPECIFICATIONS

Structure	Screen and projector, rear projection type
Projection system	3 picture tubes, 3 lenses, horizontal in-line system
Picture tube	7-inch, High-brightness monochrome tubes (5.5 raster size), with optical coupling and liquid cooling system
Projection lenses	High performance, large-diameter hybrid lens F 1.0
Screen material	Plastic lenticular, Plastic fresnel
Television standard	B/G, SECAM, $\text{NTSC}_{4.43}$, $\text{NTSC}_{3.58}$
NICAM stereo system	B/G system
Antenna	75-ohm external antenna terminal
Speakers	Woofer 13 cm Tweeter 2.5 cm

Resolution	900 lines
Projected picture size (measured diagonally)	53 inches
Screen brightness	1,233 cd/m²
Dimensions (w/h/d)	1237.9 x 1301.9 x 609.6 mm
Mass	95 kg

☛

Power requirements	220—240 V AC, 50/60 Hz
Power consumption	325 W
Accessories supplied	RM-821 Remote Commander (1) R6 batteries (2)
Optional accessories	RM-829 Remote Commander

MICROFILM

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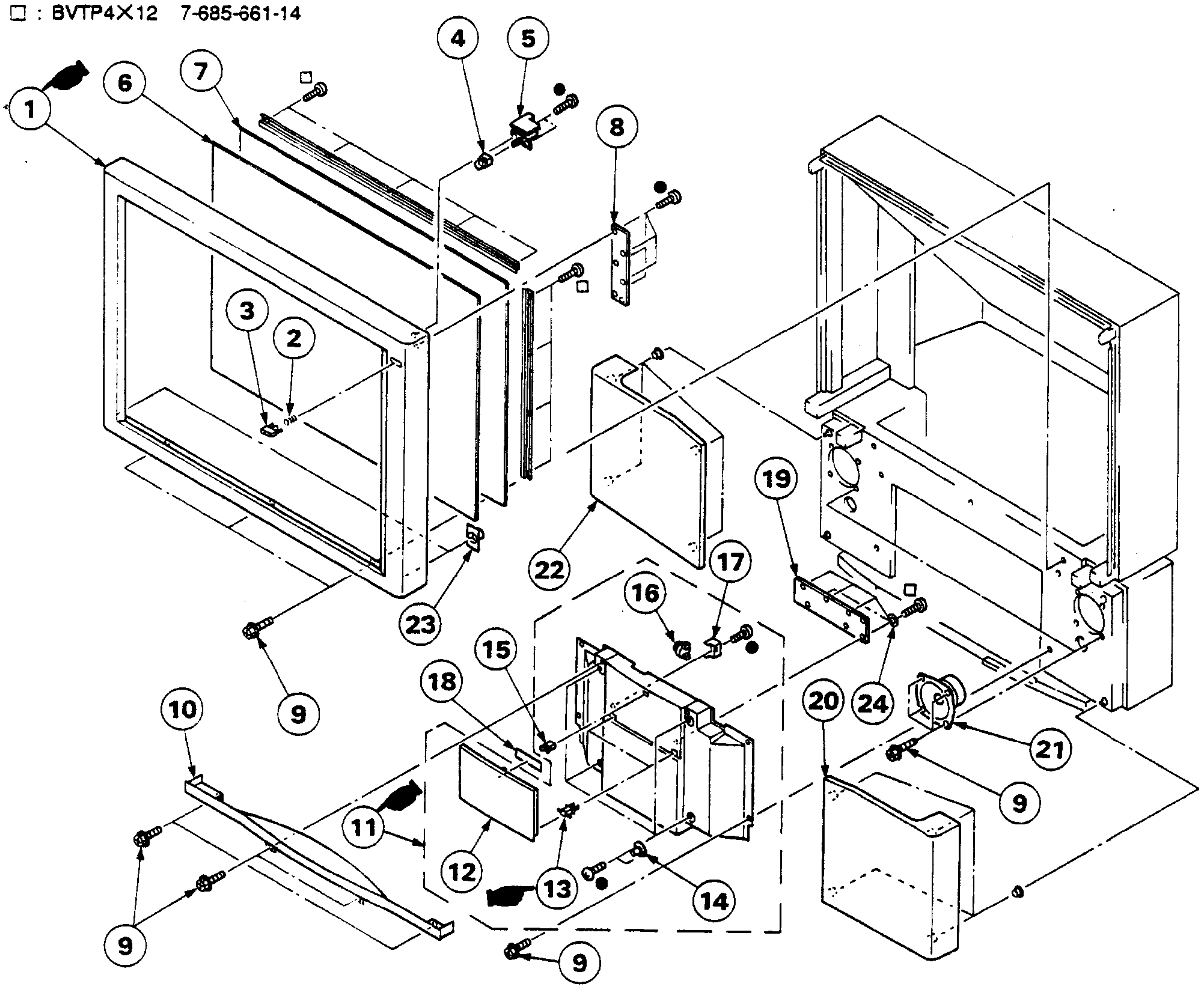
6-1. CONTROL PANEL

● : BVTP3×12 7-685-648-79
□ : BVTP4×12 7-685-661-14



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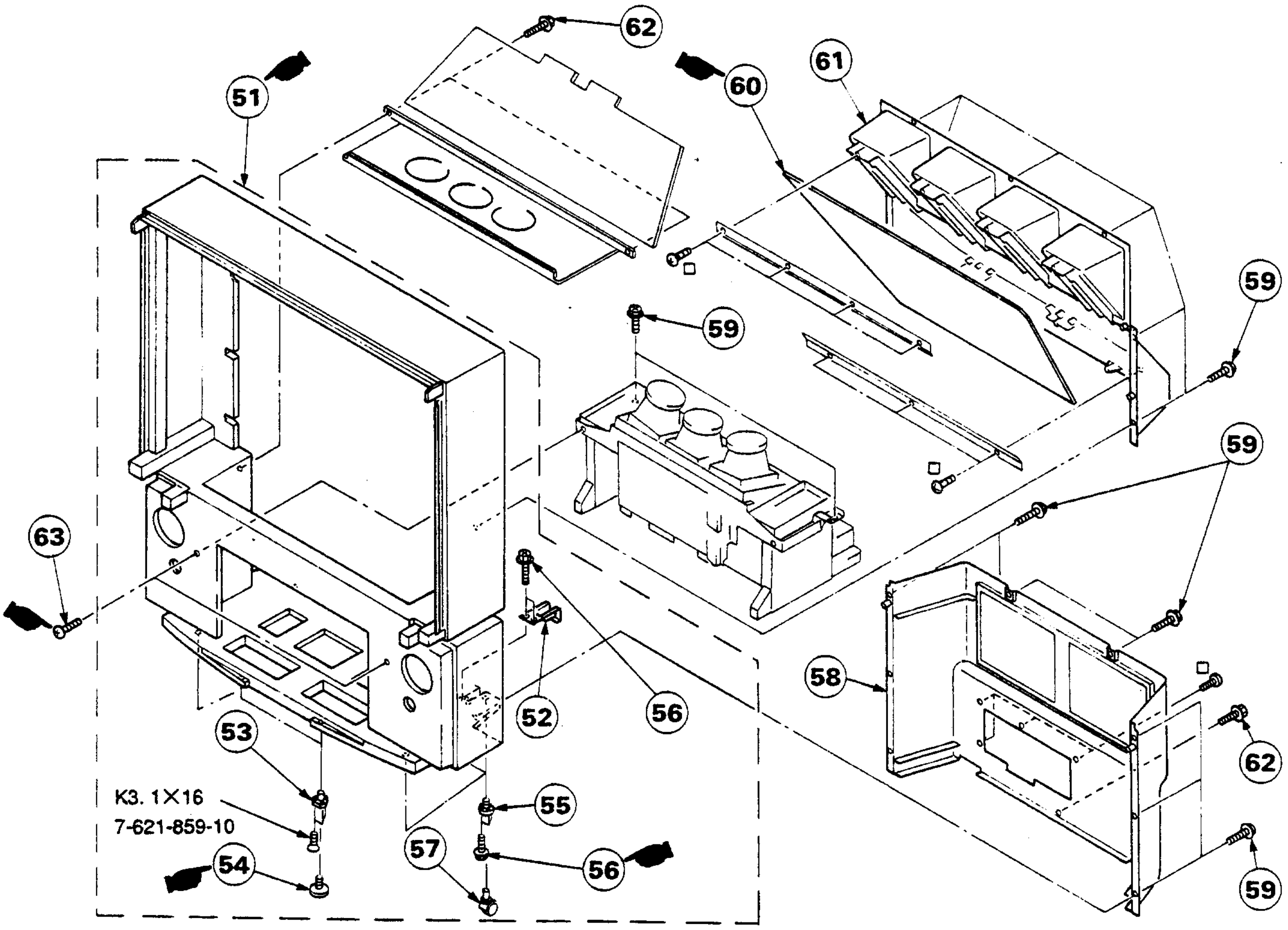
6-2. CABINET

☐ : BVTP4×12   7-685-661-14



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K3. 1×16
7-621-859-10
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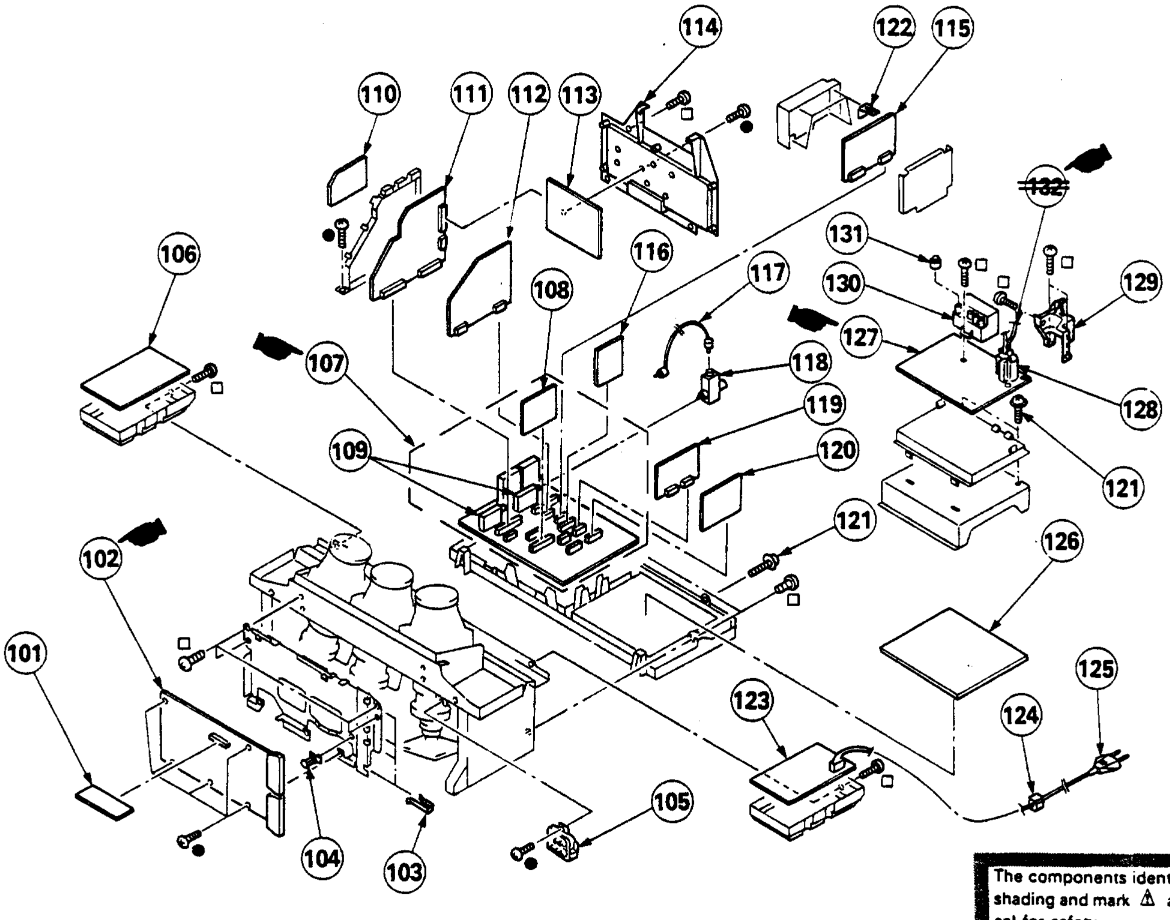
6-3. CHASSIS

● : BVTP3X12 7-685-648-79
☐ : BVTP3X12 7-685-661-14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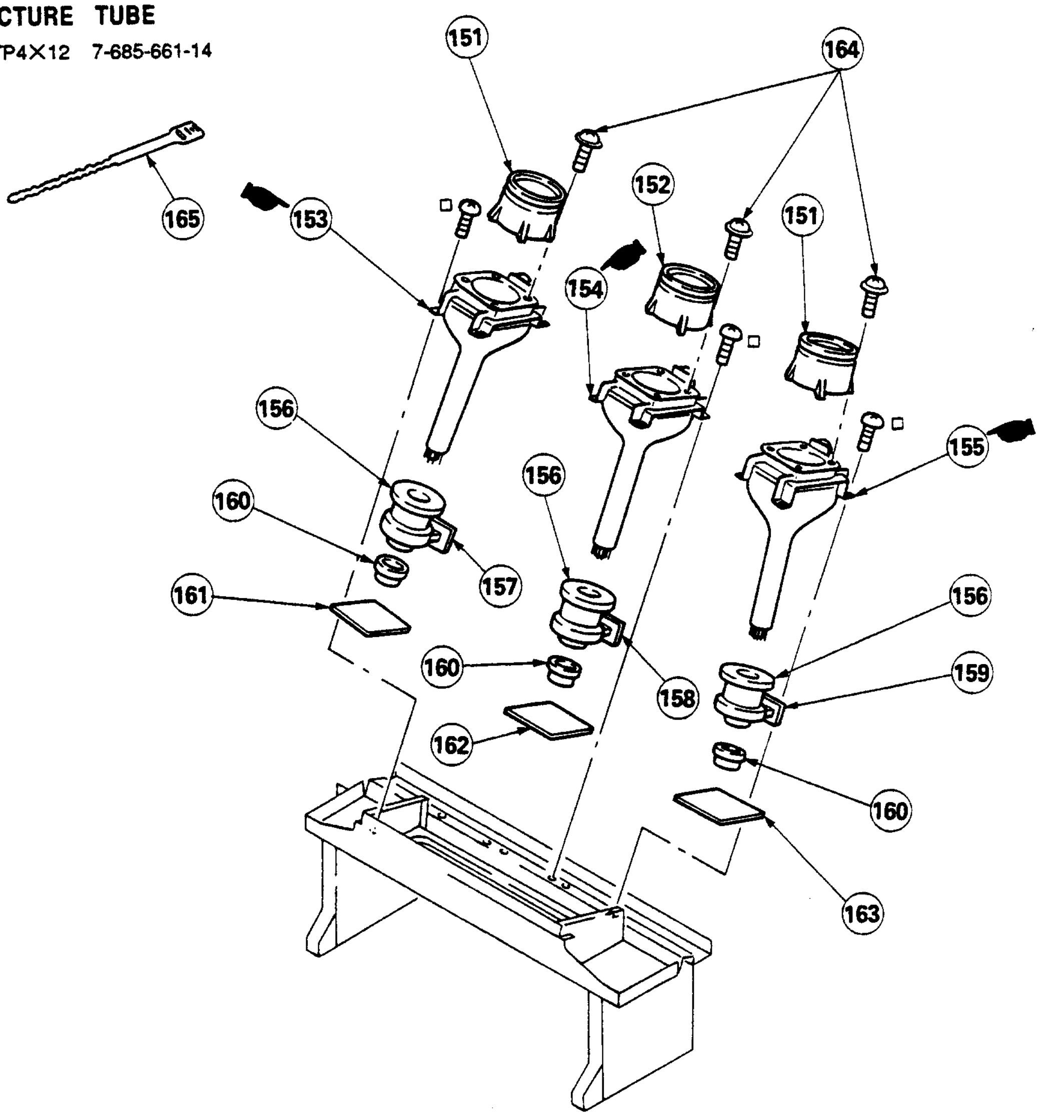
**The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.**

6-4. PICTURE TUBE

□ : BVTP4X12 7-685-661-14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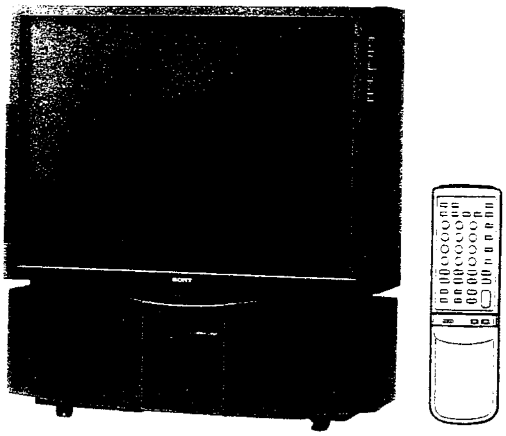
The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

KPR-S46MN1/S53MN1
RM-821

SERVICE MANUAL

ME Model

KPR-S46MN1
Chassis No. SCC-F66A-A
KPR-S53MN1
Chassis No. SCC-F66B-A



KiRARA BASSO

AP-1GA CHASSIS

SPECIFICATIONS

Structure	Screen and projector, rear projection type
Projection system	3 picture tubes, 3 lenses, horizontal in-line system
Picture tube	7-inch, High-brightness monochrome tubes (5.5 raster size), with optical coupling and liquid cooling system
Projection lenses	High performance, large-diameter hybrid lens F 1.0
Screen material	Plastic lenticular, Plastic fresnel
Television standard	B/G, SECAM, $\text{NTSC}_{4.43}$, $\text{NTSC}_{3.58}$
NICAM stereo system	B/G system
Antenna	75-ohm external antenna terminal
Speakers	Woofer 13 cm Tweeter 2.5 cm

Model	KPR-S46MN1	KPR-S53MN1
Resolution	859 lines	900 lines
Projected picture size (measured diagonally)	46 inches	53 inches
Screen brightness	1,644 cd/m^2	1,233 cd/m^2
Dimensions (w/h/d)	1103.9 x 1289.1 x 506.8 mm	1237.9 x 1301.9 x 609.6 mm
Mass	73 kg	85 kg

Power requirements	220—240 V AC, 50/60 Hz
Power consumption	325 W
Accessories supplied	RM-821 Remote Commander (1) R6 batteries (2)
Optional accessories	RM-829 Remote Commander

Inputs

Jack	S VIDEO	VIDEO	AUDIO L/R
VIDEO 1	4-pin mini DIN Y: 1 Vp-p, 75 ohms, unbalanced, sync negative C: 0.286 Vp-p, 75 ohms	Phono jack 1 Vp-p, 75 ohms, unbalanced, sync negative	0.5 Vrms (standard level, 47 kiloohms)
VIDEO 2			
VIDEO 3	—		
VIDEO 4	4-pin mini DIN Y: 1 Vp-p, 75 ohms, unbalanced, sync negative C: 0.286 Vp-p, 75 ohms		

MODELS OF THE SAME SERIES	
KPR-S46MN1/S53MN1	

Output

Jack	S VIDEO	VIDEO	AUDIO L/R
VIDEO 1	4-pin mini DIN Y: 1 Vp-p, 75 ohms, unbalanced, sync negative C: 0.286 Vp-p, 75 ohms	1 Vp-p, 75 ohms, unbalanced, sync negative	0.5 Vrms (standard level, 5 kiloohms or less)
VIDEO 2			
VIDEO 4			
MONITOR			
AUDIO OUT	—	—	

Design and specifications are subject to change without notice.

MICROFILM

PROJECTION TV

SONY®

Channel Coverage

MIDDLE EAST/ASIA (B/G, H)

Receivable Channel	Channel Display
E-2 to E-12	C02 to C12
E-21 to E-69	C21 to C69
Indonesia	
2 to 11	C03 to C12
Morocco	
M-4 to M-7	C70 to C73
M-8 to M-10	C8 to C10
New Zealand	
2	C03
3	C04
4 to 9	C05 to C10

CATV W. EUROPE (B/G, H)

Receivable Channel	Channel Display
S-01 to S-03	C42 to C44
S-1 to S-41	C01 to C41

AUSTRALIA (B/G, H)

Receivable Channel	Channel Display
Australia	
AS-0 to AS-11	C00 to C11
AS-5A	C12
AS-28 to AS-69	C28 to C69
New Zealand	
2 to 3	C01 to C02
4 to 7	C06 to C09
8	C13
9	C10

HK/UK (I)

Receivable Channel	Channel Display
Hong Kong, United Kingdom	
B-21 to B-68	C21 to C68
Ireland	
B,C,..., J	C02, C03,..., C09
South Africa	
4 to 13	C04 to C13
21 to 68	C21 to C68

E.EUROPE/CHINA (D/K)

Receivable Channel	Channel Display
East European countries	
R-1 to R-12	C01 to C12
R-21 to R-60	C21 to C60
China	
C-1	C01
C-2	C02
C-3	C13
C-4	C03
C-5	C04
C-6	C14
C-7 to C-12	C06 to C11
C-13 to C-24	C21 to C32
C-25 to C-47	C38 to C60
C-48 to C-57	C61 to C70

AMERICA (M)

Receivable Channel	Channel Display
2 to 83	C02 to C83

CATV AMERICA (M)

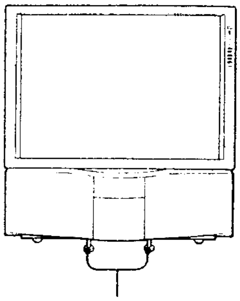
Receivable Channel	Channel Display
2 to 13	C02 to C13
A-1	C99
A-2	C98
A-3	C97
A-4	C96
A-5	C95
A-6	C06
A-7	C05
A-8	C01
A, B,..., W	C14, C15,..., C36
AA,..., CCC	C37,..., C65

JAPAN

Receivable Channel	Channel Display
J-1 to J-62	C01 to C62
C-13 to C-32	C80 to C99

Stabilizing the Projection TV

The TV should be installed so that it is as level as possible, for safety purposes. After setting up, always lower the two adjustable legs located at the bottom, by turning the legs to the left, to stabilize the TV.



CAUTION

SHORT CIRCUIT THE ANODE OF THE PICTURE TUBE AND THE ANODE CAP TO THE METAL CHASSIS, CRT SHIELD, OR CARBON PAINTED ON THE CRT, AFTER REMOVING THE ANODE.

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY SHADING AND MARK ⚠
ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEW
AND IN THE PARTS LIST ARE CRITICAL TO SAF
OPERATION. REPLACE THESE COMPONENTS WIT
SONY PARTS WHOSE PART NUMBERS APPEAR A
SHOWN IN THIS MANUAL OR IN SUPPLEMENT
PUBLISHED BY SONY.

2628

SONY®

SERVICE MANUAL

AP-1GA CHASSIS

MODEL	COMMANDER Serial No.	DEST.	CHASSIS NO.	MODEL	COMMANDER Serial No.	DEST.	CHASSIS NO.
KPR-S46MN1	*RM-821* *Serial No. 9,200,001 and later*	*ME*	*SCC-F66A-A*				
KPR-S53MN1	*RM-821* *Serial No. 9,200,001 and later*	*ME*	*SCC-F66B-A*				

STANDARD

SUPPLEMENT-2

SUBJECT: CHANG OF SCREEN

File this supplement with the Service manual.

☛ : Indicates changed portion

SPECIFICATIONS (See cover)

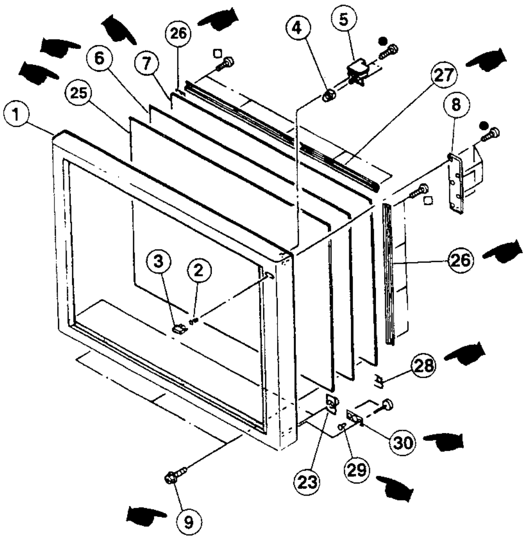
MODEL	KPR-S46MN1	KPR-S53MN1
Screen brightness	1,348 cd/m2 ☛	1,011 cd/m 2 ☛

AN ITEM OF ADJUSTMENT (See page 41)

LABSEL	ITEM	DATA SPHERE	STANDARD 50Hz|60Hz	NAME REGIST
28	SPIC	00-1F	11 ☛	SUB PICTURE
30	SCOL	00-1F	10 ☛	SUB COLOR

SECTION 6. EXPLODED

6-1. CONTOROL PANEL (See page 159)



☛

REF NO.	PART NO.	DESCRIPTION
6	4-036-466-01	PLATE(L), DIFFUSION(KPR-S53MN1)
	4-037-360-11	PLATE(L), DIFFUSION(KPR-S46MN1)
7	4-036-469-01	PLATE(F), DIFFUTION(KPR-S53MN1)
	4-037-359-11	PLATE(F), DIFFUTION(KPR-S46MN1)
9	4-378-522-11	SCREW, TAPPING, HEXAGON HEAD)
25	4-051-721-11	SCREEN(53), CONTRAST(KPR-S53MN1)
	4-051-722-11	SCREEN(46), CONTRAST(KPR-S46MN1)
26	4-043-239-01	HOLDER(S), SCREEN(KPR-S46MN1)
	4-043-239-11	HOLDER(S), SCREEN(KPR-S53MN1)
27	4-043-240-01	HOLDER(L), SCREEN(KPR-S46MN1)
	4-043-240-11	HOLDER(L), SCREEN(KPR-S53MN1)
28	4-043-240-21	HOLDER(L), SCREEN(KPR-S46MN1)
	4-043-240-31	HOLDER(L), SCREEN(KPR-S53MN1)
29	4-838-452-00	STRIKE
30	4-838-453-00	SUPPORT

※ **Please file according to model size.** .... ▩

46	53

MICROFILM

9-964-912-82

Sony Corporation
Consumer A&V Products Company
TV & Display Products Div.

English
95KR02138-1
Printed in JAPAN

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SONY®
SERVICE MANUAL

AP-2 CHASSIS

MODEL	COMMANDER Serial No.	DEST.	CHASSIS NO.
KPR-S46MH1	RM-821 Serial No. 9,200,001 and later	Hong kong	SCC-F63A-A
KPR-S53MH1	RM-821 Serial No. 9,200,001 and later	Hong kong	SCC-F65A-A

SUPPLEMENT-3

SUBJECT: CHANG OF SCREEN

File this supplement with the Service manual.

☛ : Indicates changed portion

SPECIFICATIONS (See cover)

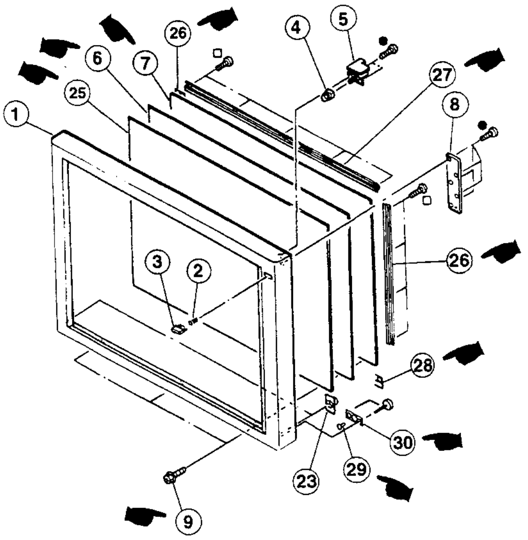
MODEL	KPR-S46MH1	KPR-S53MH1
Screen brightness	1,348 cd/m2 ☛	1,011 cd/m2 ☛

AN ITEM OF ADJUSTMENT (See page 41)

LABSEL	ITEM	DATA SPHERE	STANDARD 50Hz 60Hz	NAME REGIST
28	SPIC	00-1F	11 ☛	SUB PICTURE
30	SCOL	00-1F	10 ☛	SUB COLOR

SECTION 6. EXPLODED

6-1. CONTOROL PANEL (See page 159)



☛

REF NO.	PART NO.	DESCRIPTION
6	4-036-466-01	PLATE(L), DIFFUSION(KPR-S53MH1)
	4-037-360-11	PLATE(L), DIFFUSION(KPR-S46MH1)
7	4-036-469-01	PLATE(F), DIFFUTION(KPR-S53MH1)
	4-037-359-11	PLATE(F), DIFFUTION(KPR-S46MH1)
9	4-378-522-11	SCREW, TAPPING, HEXAGON HEAD
25	4-051-721-11	SCREEN(53), CONTRAST(KPR-S53MH1)
	4-051-722-11	SCREEN(46), CONTRAST(KPR-S46MH1)
26	4-043-239-01	HOLDER(S), SCREEN(KPR-S46MH1)
	4-043-239-11	HOLDER(S), SCREEN(KPR-S53MH1)
27	4-043-240-01	HOLDER(L), SCREEN(KPR-S46MH1)
	4-043-240-11	HOLDER(L), SCREEN(KPR-S53MH1)
28	4-043-240-21	HOLDER(L), SCREEN(KPR-S46MH1)
	4-043-240-31	HOLDER(L), SCREEN(KPR-S53MH1)
29	4-838-452-00	STRIKE
30	4-838-453-00	SUPPORT

※ Please file according to model size. ……… ▨

46	53

MICROFILM

Sony Corporation
Consumer A&V Products Company
TV & Display Products Div.

9-964-913-83

English
95KR0202-1
Printed in JAPAN

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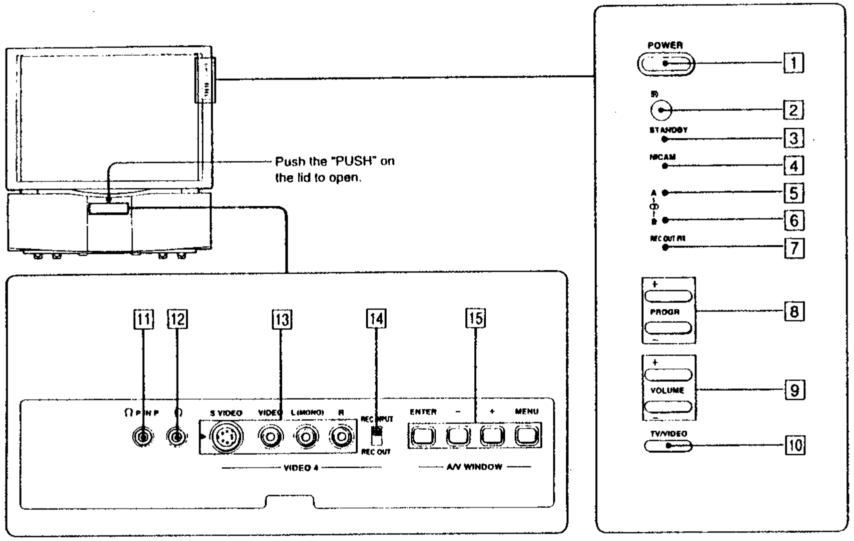
SECTION 1
GENERAL

The operating instructions mentioned here are partial abstracts from the Operating Instruction Manual. The page numbers of the Operating Instruction Manual remein as in the manual.

Overview

This section briefly describes the buttons and controls on the TV set and on the Remote Commander. For more information, refer to the pages given next to each description.

TV


Push the "PUSH" on the lid to open.
POWER
STANDBY
NICAM
A
B
REC OUT FIX
PROGR
VOLUME
TV/VIDEO
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
P IN P
S VIDEO
VIDEO
L(MONO)
R
REC INPUT
REC OUT
VIDEO 4
ENTER
-
+
MENU
A/V WINDOW

1 POWER switch ● ●

2 ■ Remote control detector
Operate the Remote Commander pointed at here.

3 STANDBY lamp

4 NICAM lamp ●

5 A mode lamp ●

6 B mode lamp ●

7 REC OUT(recording output) FIX lamp ●

8 PROGR (program) +/– buttons ●
Press to select a program.

9 VOLUME +/– buttons ●
Press to adjust the volume.

10 TV/VIDEO button ●

11 ∩ P IN P (Picture In Picture) headphones jack
Connect headphones to listen to the sound of P IN P picture.

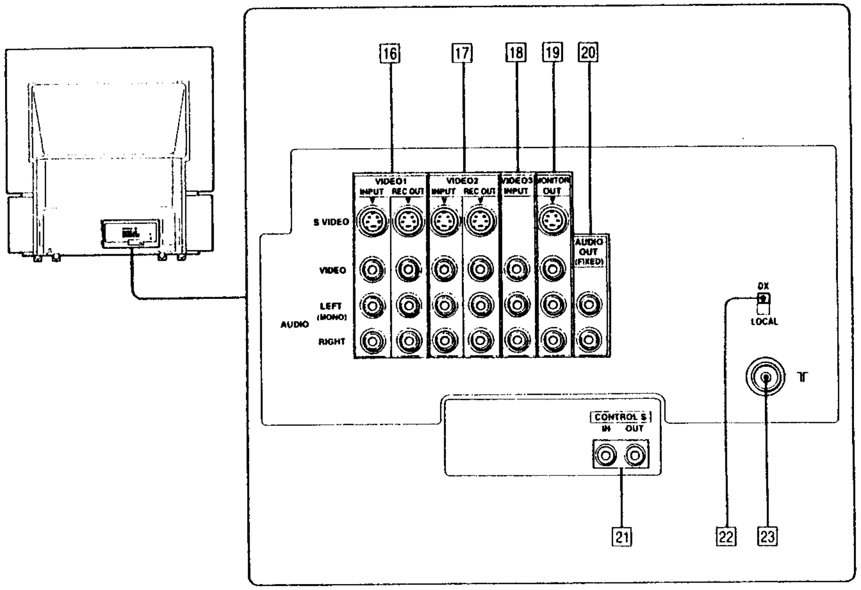
12 ∩ Headphones jack
Connect headphones to listen personally.

13 VIDEO 4 connectors ●

14 VIDEO 4 REC INPUT/REC OUT(recording input/output) button ●
Press to switch the video 4 connectors to input or output.

15 Menu and A/V(audio/video) WINDOW function buttons
● ● ● ● ● ● ● ● ● ● ●

Rear


16
17
18
19
20
VIDEO1
INPUT
REC OUT
VIDEO2
INPUT
REC OUT
VIDEO3
INPUT
MONITOR
OUT
AUDIO
OUT
(FIXED)
S VIDEO
VIDEO
LEFT
(MONO)
RIGHT
AUDIO
DX
LOCAL
CONTROL S
IN
OUT
21
22
23

16 VIDEO 1 INPUT/REC OUT(recording output) jacks ●

17 VIDEO 2 INPUT/REC OUT(recording output) jacks ●

18 VIDEO 3 INPUT jacks ●

19 MONITOR OUT(output) jacks
Connect another TV or monitor.

20 AUDIO OUT(output) (FIXED) jacks ●

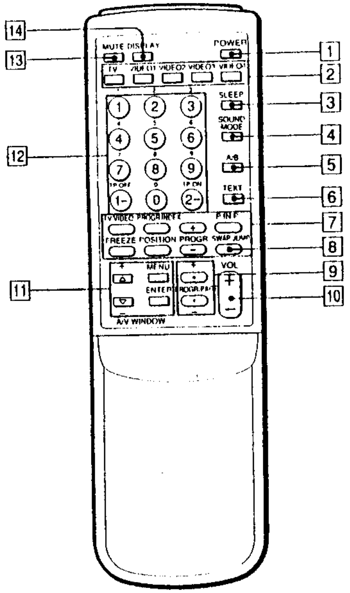
21 CONTROL S INPUT/OUTPUT jacks
To control the TV with the Remote Commander to be pointed at another Sony equipment, connect the Sony equipment to INPUT.
To control another Sony equipment with the Remote Commander to be pointed at the TV, connect the Sony equipment to OUTPUT.

22 DX/LOCAL switch
Normally set this switch to DX. If the sound is noisy, or lines or stripes appear on the screen because of too strong TV signal, set the switch to LOCAL.

23 Ͳ (antenna) terminal ●

Overview

Remote Commander


14
13
12
11
1
2
3
4
5
6
7
8
9
10
MUTE
DISPLAY
POWER
TV
VIDEO1
VIDEO2
VIDEO3
VIDEO4
SLEEP
SOUND MODE
A/B
TEXT
TP OFF
TP ON
TV/VIDEO
PROGR INDEX
P IN P
FREEZE
POSITION
PROGR
SWAP JUMP
MENU
ENTER
PROGR/PAGE
VOL
A/V WINDOW

1 POWER button ●

2 TV, VIDEO 1, VIDEO 2, VIDEO 3, VIDEO 4 (FRONT) input select buttons ●

3 SLEEP button ●
Press to set the sleep timer so that the TV automatically switches into standby mode.

4 SOUND MODE button ●
Press to select the sound mode according to the program.

5 A/B button ●
Press to select the sound mode of stereo or bilingual program.

6 TEXT button ●
Press to switch to teletext mode.

7 P IN P (Picture In Picture) screen control buttons ● ●

8 JUMP button ●

9 PROGR(program)/PAGE +/– buttons ● ● ●

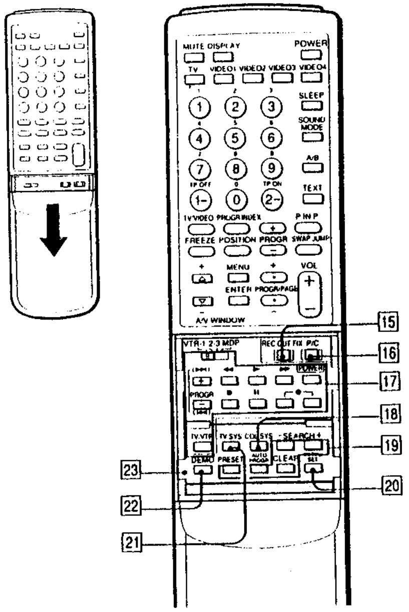
10 VOL(volume) +/– buttons ●

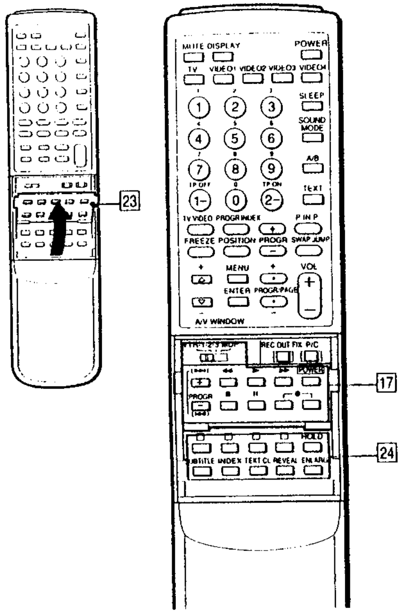
11 Menu and A/V(audio/video) WINDOW function buttons ● ● ● ● ● ● ● ● ● ● ●

12 Program number buttons ●

13 MUTE button ●

14 DISPLAY button ●
Press to display current mode and program position.


15
16
17
18
19
20
23
22
21
MUTE DISPLAY
POWER
TV
VIDEO1
VIDEO2
VIDEO3
VIDEO4
SLEEP
SOUND MODE
A/B
TEXT
P IN P
FREEZE
POSITION
PROGR
SWAP JUMP
MENU
VOL
ENTER
PROGR/PAGE
A/V WINDOW
VTR 1 2 3 MDP
REC OUT FIX P/C
PROGR
TV/VTR
TV SYS
COL SYS
SEARCH
DEMO
PRESET
AUTO PROGR
CLEAR
SET


23
17
24
MUTE DISPLAY
POWER
TV
VIDEO1
VIDEO2
VIDEO3
VIDEO4
SLEEP
SOUND MODE
A/B
TEXT
P IN P
FREEZE
POSITION
PROGR
SWAP JUMP
MENU
VOL
ENTER
PROGR/PAGE
A/V WINDOW
VTR 1 2 3 MDP
REC OUT FIX P/C
PROGR
HOLD
SUBTITLE
INDEX
TEXT CL
REVEAL
ENLARGE

15 REC OUT(recording output) FIX button ●
Press to fix the source to be recorded.

16 P/C (program position/channel) button ●

17 VTR/Multi disc player controls

When the panel 23 is in the lower position

18 COL SYS(color system) button ●
Press to select a color system.

19 Channel presetting buttons ● ●

20 INITIAL SET button
Press to reset the adjustment and setting to factory-set mode.

21 TV SYS(system) button ● ●
Press to select a TV system.

22 DEMO(demonstration) button ●
Press to see all the menu pages in sequence.

23 Panel
Make sure that the panel is fixed in the upper or lower position.

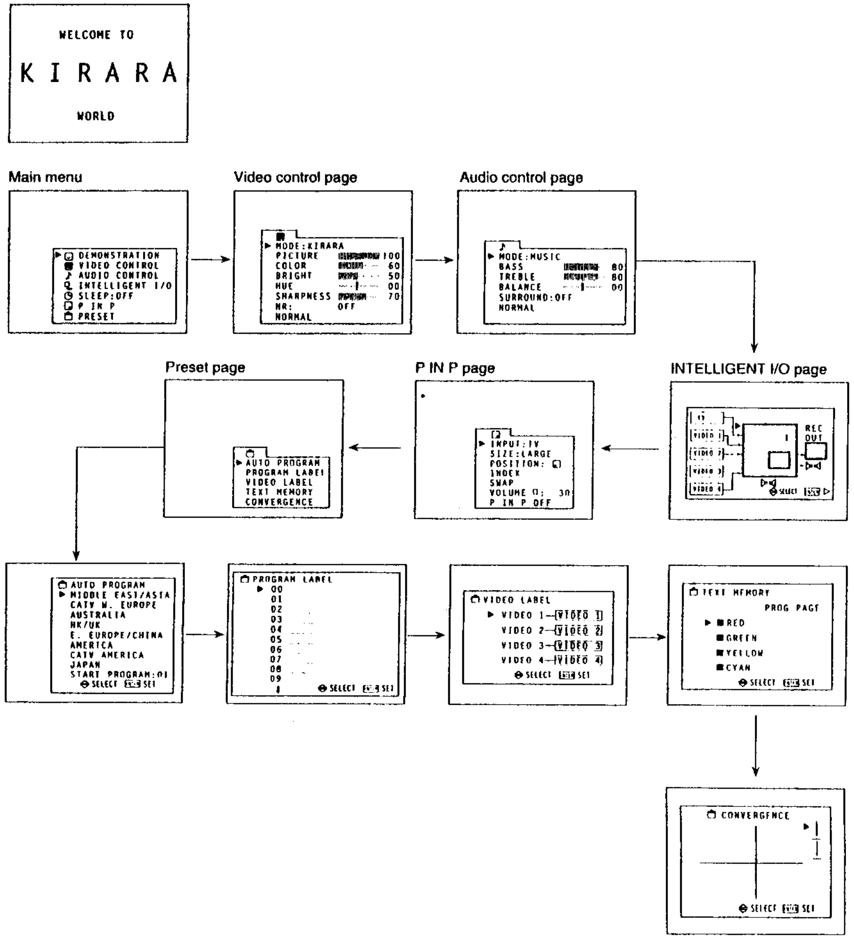
When the panel is in the upper position

24 Teletext operation buttons ● ●

Introduction of Menu

You will perform presetting, adjustment and other setting on the menu. Before beginning the presetting and operation, we suggest to have a look at the pages in the menu.

Press the DEMO button on the Remote Commander.
All the menu pages appear in sequence, and repeatedly.
To stop demonstration, press any button.


WELCOME TO
KIRARA
WORLD
Main menu
DEMONSTRATION
VIDEO CONTROL
AUDIO CONTROL
INTELLIGENT I/O
SLEEP:OFF
P IN P
PRESET
Video control page
MODE:KIRARA
PICTURE 100
COLOR 60
BRIGHT 50
HUE 00
SHARPNESS 70
NR: OFF
NORMAL
Audio control page
MODE:MUSIC
BASS 80
TREBLE 80
BALANCE 00
SURROUND:OFF
NORMAL
Preset page
AUTO PROGRAM
PROGRAM LABEL
VIDEO LABEL
TEXT MEMORY
CONVERGENCE
P IN P page
INPUT:TV
SIZE:LARGE
POSITION:
INDEX
SNAP
VOLUME: 30
P IN P OFF
INTELLIGENT I/O page
REC OUT
SELECT
AUTO PROGRAM
MIDDLE EAST/ASIA
CATV W. EUROPE
AUSTRALIA
HK/UK
E. EUROPE/CHINA
AMERICA
CATV AMERICA
JAPAN
START PROGRAM:01
SELECT SET
PROGRAM LABEL
00
01
02
03
04
05
06
07
08
09
SELECT SET
VIDEO LABEL
VIDEO 1—VIDEO 1
VIDEO 2—VIDEO 2
VIDEO 3—VIDEO 3
VIDEO 4—VIDEO 4
SELECT SET
TEXT MEMORY
PROG PAGE
RED
GREEN
YELLOW
CYAN
SELECT SET
CONVERGENCE
SELECT SET

Presetting the Channels

Channel Allocation

Areas allocated in "MIDDLE EAST/ASIA" channel system
Afghanistan, Albania, Algeria, Austria, Bahrain, Bangladesh, Belgium, Brunei, Canary Islands, Cyprus, Denmark, Egypt, Finland, Germany, Ghana, Gibraltar, Greece, Iceland, India, Indonesia, Iran, Iraq, Italy, Jordan, Kenya, Republic of Korea, Kuwait, Lebanon, Liberia, Libya, Luxemburg, Malaysia, Malta, Mauritania, Mauritius, Maldives Rep., Morocco, Mozambique, Nepal, Netherlands, New Zealand, Nicaragua, Nigeria, Norway, Oman, Pakistan, Portugal, Qatar, Sarawak, Saudi Arabia, Seychelles, Sierra Leone, Singapore, Spain, Srilanka, Sudan, Swaziland, Sweden, Switzerland, Syrian Arab Rep., Tanzania, Thailand, Tunisia, Turkey, Uganda

Areas allocated in "CATV W. EUROPE" channel system
United Arab Emirates, Western Sahara, Yemen Arab Republic, People's Dem. Rep. of Yemen, Yugoslavia, Zambia, Zimbabwe

Areas allocated in "AUSTRALIA" channel system
Australia, New Zealand

Areas allocated in "HK/UK" channel system
Hong Kong, Ireland, Lesotho, South Africa, United Kingdom

Areas allocated in "E. EUROPE/CHINA" channel system
Benin, Bulgaria, China, Congo, Czechoslovakia, Djibouti Republic, Gabon, Guadeloupe, Guiana, Guinea (P.P.R.), Hungary, Ivory Coast, Dem. People's Rep. of Korea, Madagascar, Mongolia, New Caledonia, Niger, Poland, Reunion, Rumania, Senegal, Tahiti, Togo, Former U.S.S.R., Vietnam, Zaire

Areas allocated in "AMERICA" channel system
Bahama Islands, Barbados, Belize, Bermuda, Bolivia, Burma(UHF), Canada, Chile, Colombia, Costa Rica, Cuba, Dominica Republic, Ecuador, El Salvador, Guam, Guatemala, Haiti, Hawaii, Honduras, Jamaica, Laos, Mexico, Panama, Peru, Philippines, Puerto Rico, Surinam, Taiwan, Trinidad & Tobago, U.S.A., Venezuela

Areas allocated in "CATV AMERICA" channel system
U.S.A.(CATV)

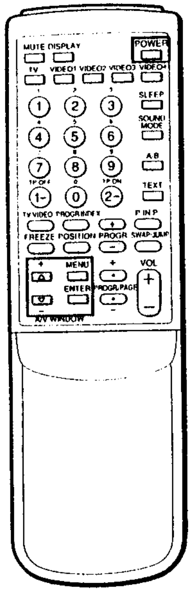
Areas allocated in "JAPAN" channel system
Japan (UHF, VHF), Burma (Myanmar) (VHF)

TV and Color System of the Channel System

The TV system and color system are automatically set according to the channel system.

Channel system	TV system	Color system
MIDDLE EAST/ASIA	B/G, H; West European TV standard	AUTO
CATV W.EUROPE	B/G, H; West European TV standard	AUTO
AUSTRALIA	B/G, H; Australian TV standard	AUTO
HK/UK	I; British TV standard	AUTO
E.EUROPE/CHINA	D/K; East European TV standard	AUTO
AMERICA	M; American TV standard	AUTO
CATV AMERICA	M; American TV standard	AUTO
JAPAN	M; Japan TV standard	AUTO

Presetting the Channels


MUTE DISPLAY
POWER
TV
VIDEO1
VIDEO2
VIDEO3
VIDEO4
SLEEP
SOUND MODE
A/B
TEXT
P IN P
TV/VIDEO
PROGR.INDEX
FREEZE
POSITION
PROGR
SWAP JUMP
MENU
VOL
ENTER
PROGR/PAGE
A/V WINDOW

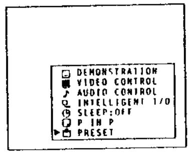
Preset Channels Automatically

Up to 30 receivable channels from the lowest channel are automatically preset in the consecutive program positions (1 to 29, 0).
With this method, you can preset all receivable channels at once.

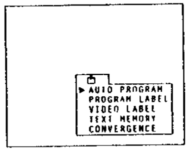
1 Press the POWER switch of the TV to turn on the TV.

2 Press MENU on the Remote Commander.

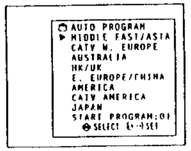
3 Move the red cursor to "PRESET" using Δ or ∇, then press ENTER.


DEMONSTRATION
VIDEO CONTROL
AUDIO CONTROL
INTELLIGENT I/O
SLEEP:OFF
P IN P
▶ PRESET

4 Move the red cursor to "AUTO PROGRAM" using Δ or ∇, then press ENTER.


▶ AUTO PROGRAM
PROGRAM LABEL
VIDEO LABEL
TEXT MEMORY
CONVERGENCE

5 Move the red cursor to your channel system using Δ or ∇, according to the list on page 13, then press ENTER.
Presetting starts from program position 1. When presetting is finished, 1 (program number) appears.

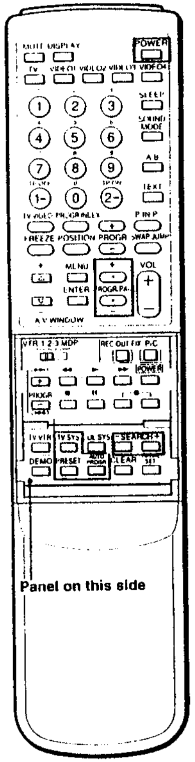

AUTO PROGRAM
▶ MIDDLE EAST/ASIA
CATV W. EUROPE
AUSTRALIA
HK/UK
E. EUROPE/CHINA
AMERICA
CATV AMERICA
JAPAN
START PROGRAM:01
SELECT SET

Program and channel numbers

P01 C01 → P01 C02 → P02 C03 ---→ 1

If you want to start a program number other than 1
Before pressing ENTER in step 5, press PROGR +/– or the number button until the number you want appears at "START PROGRAM : __".

If you cannot use the Remote Commander
Use the MENU, ENTER, + and – buttons on the TV, and perform as above.


POWER
MENU
ENTER
VOL
TV SYS
SEARCH
DEMO
PRESET
AUTO PROGR
CLEAR
SET
Panel on this side

To preset the channels automatically without using the menu

1 Press the POWER switch of the TV to turn on the TV.

2 Press PRESET on the Remote Commander. P01 C01

3 Select your channel system by pressing TV SYS, referring to "Channel Allocation" on page 13.

MIDDLE EAST/ASIA → CATV W. EUROPE → AUSTRALIA → HK/UK
JAPAN ← CATV AMERICA ← AMERICA ← E.EUROPE/CHINA

4 Press AUTO PROGR.

P01 C01 ---→ P01 C02 → P02 C03 ---→ 1

Preset Channels Manually

Use this method if there are only a few channels in your area to preset or if you want to preset channels one by one.

1 Press the POWER switch of the TV to turn on the TV.

2 Press PRESET on the Remote Commander. P01 C01

3 Using the PROGR/PAGE + and – buttons, select the program position to which you want to preset a channel. P03 C01

4 Select your channel system by pressing TV SYS.

MIDDLE EAST/ASIA → CATV W. EUROPE → AUSTRALIA → HK/UK
JAPAN ← CATV AMERICA ← AMERICA ← E.EUROPE/CHINA

5 Tune in the channel, using the SEARCH +/– buttons.
The channel number starts counting up or downwards.
When a channel is found, it stops. P03 C01

6 Repeat steps 3 to 5 to preset other channels.

7 Press PRESET. 3

Additional Presetting Functions

Skipping Program Positions

You can skip unused program positions when selecting programs with the PROGR/PAGE + and – buttons. However, the skipped programs may still be called up when you use the number buttons.

1 Press PRESET.

P01 C01

2 Select the program position using PROGR/PAGE + and – buttons.

P03 C01

3 Press CLEAR.

P03 C--

4 Press PRESET.

1

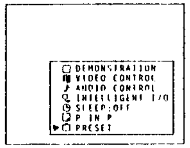
Repeat steps 1 to 4 to skip other program positions.

Captioning a Station Name

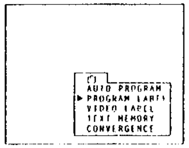
You can "name" a channel using up to four characters so that the name is displayed under the program number. Using this function, you can easily identify which channel you are watching.

1 Press MENU.

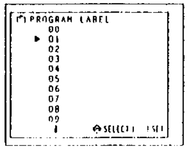
2 Move the red cursor to "PRESET" using Δ or ∇, then press ENTER.


DEMONSTRATION
VIDEO CONTROL
AUDIO CONTROL
INTELLIGENT I/O
SLEEP:OFF
P IN P
▶ PRESET

3 Move the red cursor to "PROGRAM LABEL" using Δ or ∇, then press ENTER.


AUTO PROGRAM
▶ PROGRAM LABEL
VIDEO LABEL
TEXT MEMORY
CONVERGENCE

4 Move the red cursor to the program number you want using Δ or ∇, then press ENTER. The first underline of the selected program number turns red.


PROGRAM LABEL
00
▶ 01
02
03
04
05
06
07
08
09
SELECT SET

5 Select a character using Δ or ∇, then press ENTER. The next underline turns red. Write character for each underline in the same way.
If you do not want to write a character, press ENTER.

01 C → 01 CB → 01 CBS

Usable characters: A to Z, 0 to 9, –, :, /, .(period), + and space

6 Repeat steps 4 and 5 to caption other program numbers.

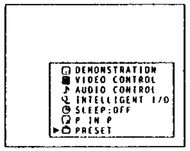
7 When you finished, press MENU.

Captioning a Video Input

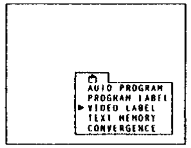
Using this function, you can identify the source (VHS, Beta, 8mm, Multi disc player, Tuner) of the video inputs, as the source is displayed under the video input.

1 Press MENU.

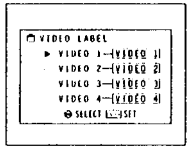
2 Move the red cursor to "PRESET" using Δ or ∇, then press ENTER.


DEMONSTRATION
VIDEO CONTROL
AUDIO CONTROL
INTELLIGENT I/O
SLEEP:OFF
P IN P
▶ PRESET

3 Move the red cursor to "VIDEO LABEL" using Δ or ∇, then press ENTER.


AUTO PROGRAM
PROGRAM LABEL
▶ VIDEO LABEL
TEXT MEMORY
CONVERGENCE

4 Move the red cursor to the video input (1, 2, 3, 4) you want using Δ or ∇.


VIDEO LABEL
▶ VIDEO 1—VIDEO 1
VIDEO 2—VIDEO 2
VIDEO 3—VIDEO 3
VIDEO 4—VIDEO 4
SELECT SET

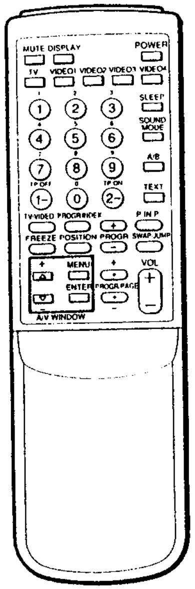
5 Press ENTER until the source name appears.

VIDEO 1 → VHS → BETA → 8mm → LD → TUNER

6 Repeat steps 4 and 5 for other video input.

7 When you finished, press MENU.

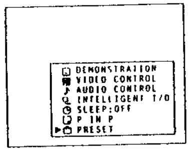
Adjusting Color Registration (CONVERGENCE)


MUTE DISPLAY
POWER
TV
VIDEO1
VIDEO2
VIDEO3
VIDEO4
SLEEP
SOUND MODE
A/B
TEXT
TV/VIDEO PROGR.INDEX
P IN P
FREEZE
POSITION
PROGR
SWAP JUMP
MENU
ENTER
PROGR.PAGE
VOL
A/V WINDOW

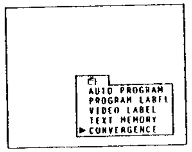
In a TV, the projection tube image appears on the screen in three color layers (red, green and blue). If these layers are not in proper registration, the color is poor and the picture blurs. To correct this, perform the CONVERGENCE adjustment.

1 Press MENU.

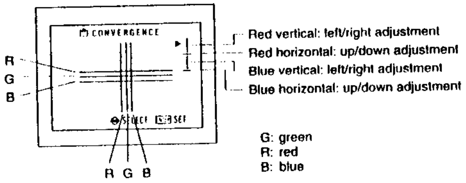
2 Move the red cursor to "PRESET" using Δ or ∇, then press ENTER.


DEMONSTRATION
VIDEO CONTROL
AUDIO CONTROL
INTELLIGENT I/O
SLEEP:OFF
P IN P
▶ PRESET

3 Move the red cursor to "CONVERGENCE" using Δ or ∇, then press ENTER.

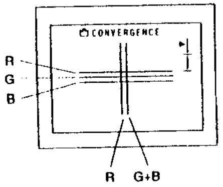

AUTO PROGRAM
PROGRAM LABEL
VIDEO LABEL
TEXT MEMORY
▶ CONVERGENCE

4 Move the red cursor to the symbol representing the line you want using Δ or ∇, then press ENTER.

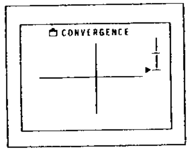

CONVERGENCE
R
G
B
R G B
Red vertical: left/right adjustment
Red horizontal: up/down adjustment
Blue vertical: left/right adjustment
Blue horizontal: up/down adjustment

G: green
R: red
B: blue

5 Press Δ or ∇ until the line converges with the center green line, then press ENTER.
To move the line up or to the right, use Δ.
To move the line down or to the left, use ∇.

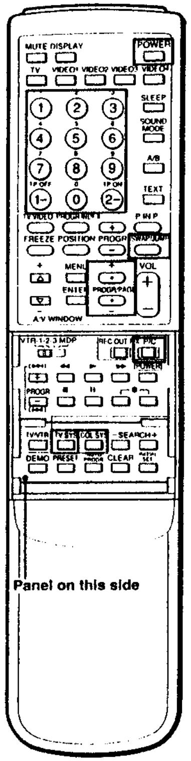

CONVERGENCE
R
G
B
R
G+B

6 Repeat steps 4 and 5 to adjust the other lines, until all the lines have overlapped to form a white cross.


CONVERGENCE

7 When you finished, press MENU.

Watching the TV



This section explains the basic functions you use while watching the TV.

Switching the TV on and off

Switching on
Press the POWER switch of the TV.

Switching off temporarily
Press POWER on the Remote Commander.
The TV enters standby mode and the standby indicator on the front of the TV lights up.

Switching on again
Press POWER, TV, PROGR/PAGE +/–, or one of the number buttons on the Remote Commander.
If you cannot use the Remote Commander, press PROGR +/– on the TV.

Switching off completely
Press the POWER switch of the TV.

Selecting TV Programs

Press PROGR/PAGE +/– or press number buttons.
To select program 5, press "5".
To select program 10, press "1–" "0".
To select program 25, press "2–" "5".

To return to the previous program number
Press JUMP. (This button functions as SWAP when the P IN P (see page 25) is displayed.)

If the sound is noisy or not heard
Press TV SYS until the sound becomes clear.

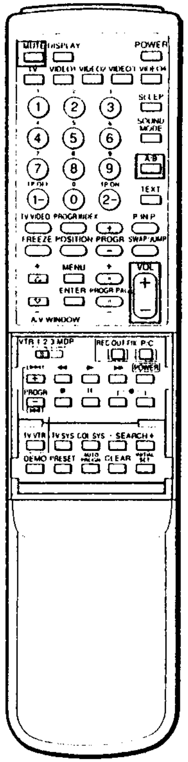
If the color program does not appear in color
Press COL SYS until the color becomes normal.

Selecting TV Program by Channel Number (not by program number)

See page 33 for the channel numbers.
1 Press P/C so that C-- appears.
2 While C-- is on, select the channel system by pressing TV SYS.
The TV becomes channel tuning mode.
3 While C-- is on, press the channel number.
To select channel 5, press "0", "5".
To select channel 25, press "2", "5".

To skip channels
1 Press P/C so that C-- appears.
2 Select the channel number to be skipped using the number buttons or PROGR/PAGE +/– buttons.
3 Press CLEAR.
Repeat steps 1 to 3 to skip other channels.
To restore the skipped channel, tune in the channel and press PRESET.

To select TV programs by program number
1 Press P/C so that P-- appears.
2 While P-- is on, press the program number.

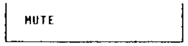


Adjusting the Volume

Press VOL +/–.

Muting the Sound

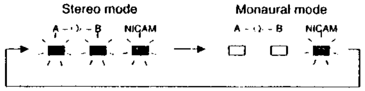
Press MUTE.



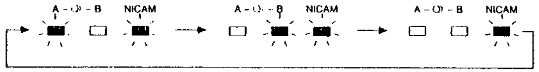
To resume normal sound, press MUTE again.

Receiving a Stereo or Bilingual Program

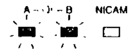
When the TV receives a NICAM stereo system program
The NICAM lamp, A and B mode lamps light. Press A/B to select stereo or monaural mode. If the signal is very weak, the sound becomes monaural. The NICAM, A and B mode lamps go off.



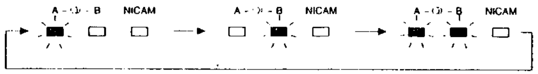
When the TV receives a NICAM bilingual system program
The NICAM lamp, A and/or B mode lamp(s) light. Press A/B so that the lamp (A or B) of the mode you want lights up.



When the TV receives a German stereo system program
The A and B mode lamps light.
If the signal is very weak, the sound becomes monaural. The lamps go off.

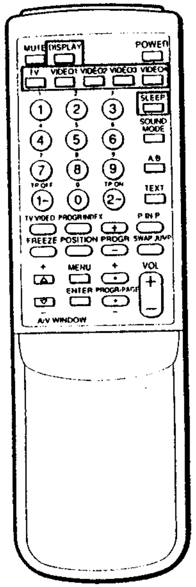


When the TV receives a German bilingual system program
A and/or B mode lamp(s) light(s). Press A/B so that the lamp (A, B, or A and B) of the mode you want lights up.



Who can receive the NICAM stereo/bilingual system
The NICAM stereo/bilingual system is receivable in Hong Kong, Singapore, New Zealand, etc.

Who can receive the German stereo/bilingual system
The German stereo/bilingual system is receivable in Australia, Malaysia, Thailand, etc.


MUTE
DISPLAY
POWER
TV
VIDEO1
VIDEO2
VIDEO3
VIDEO4
SLEEP
SOUND MODE
A/B
TEXT
TV/VIDEO
PROGR INDEX
P IN P
FREEZE
POSITION
PROGR
SWAP JUMP
MENU
VOL
ENTER
PROGR PAGE
A/V WINDOW

Watching Video Input

Using the VIDEO 1, VIDEO 2, VIDEO 3, and VIDEO 4 buttons, select the video input.
To go back to the normal TV picture, press TV.

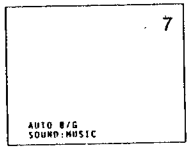
When you select VIDEO 4
If "SELECT INPUT MODE" appears on the screen, press the VIDEO 4 REC INPUT/REC OUT button on the front panel of the TV to select REC INPUT (⏏).

On the TV
Press TV/VIDEO.

Displaying the On-screen Indications

Press DISPLAY.
The program number, color and TV system setting and sound mode appear. They, except the program number, will disappear after some seconds.
Press again to make indications disappear.

In channel tuning mode (C--), channel number, channel system and sound mode appear.


7
AUTO B/G
SOUND:MUSIC

Using the Sleep Timer

You can select the time period after which the TV automatically switches into standby mode. Select the time period by pressing SLEEP.
The time period (in approximate minutes) changes as follows:

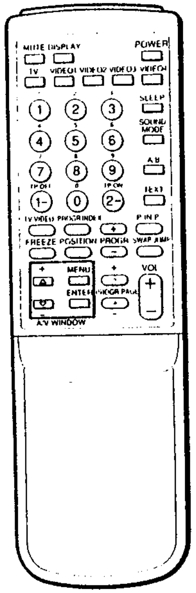
SLEEP OFF → SLEEP 30 → SLEEP 60 → SLEEP 90

About one minute before the TV switches into standby mode, "SLEEP" is displayed on the screen.

To switch off the sleep timer
Press SLEEP until "SLEEP OFF" appears.

To check the remaining time
Press SLEEP.
If you do not want to change the remaining time, leave it until it disappears automatically.

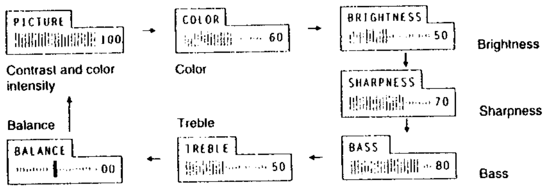
Setting the sleep timer using the menu or on the TV set
Use the MENU, ENTER, Δ and ∇ buttons on the Remote Commander or on the TV.
1 Press MENU.
2 Move the cursor to "SLEEP" using Δ or ∇.
3 Press ENTER until the time period you want appears at "SLEEP: __".


MUTE
DISPLAY
POWER
TV
VIDEO1
VIDEO2
VIDEO3
VIDEO4
SLEEP
SOUND MODE
A/B
TEXT
TV/VIDEO
PROGR INDEX
P IN P
FREEZE
POSITION
PROGR
SWAP JUMP
MENU
VOL
ENTER
PROGR PAGE
A/V WINDOW

Adjusting the Picture and Sound

Although the picture and sound are adjusted at the factory, you can adjust them to suit your own taste.

1 Select the item by pressing ENTER.


PICTURE 100
Contrast and color intensity
COLOR 60
Color
BRIGHTNESS 50
Brightness
SHARPNESS 70
Sharpness
BASS 80
Bass
TREBLE 50
Treble
BALANCE 00
Balance

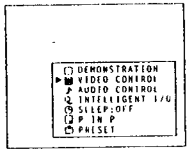
2 Using Δ or ∇ button, adjust the item to your taste.

Adjusting the picture and sound using the menu or on the TV set
Use the MENU, ENTER, Δ and ∇ buttons on the Remote Commander or on the TV.

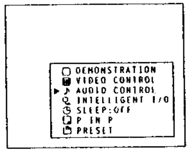
1 Press MENU.

2 To adjust the picture, move the red cursor to "VIDEO CONTROL" using Δ or ∇, then press ENTER.
To adjust the sound, move the red cursor to "AUDIO CONTROL" using Δ or ∇, then press ENTER.

Video control

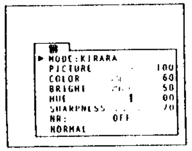

DEMONSTRATION
▶ VIDEO CONTROL
AUDIO CONTROL
INTELLIGENT I/O
SLEEP:OFF
P IN P
PRESET

Audio control

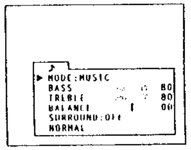

DEMONSTRATION
VIDEO CONTROL
▶ AUDIO CONTROL
INTELLIGENT I/O
SLEEP:OFF
P IN P
PRESET

3 Move the red cursor to the item you want to adjust using Δ or ∇, then press ENTER.

Video control

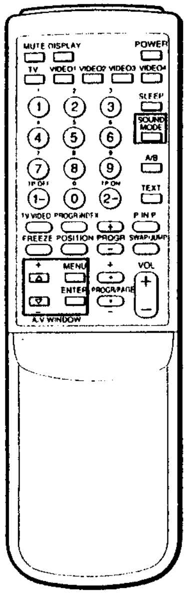

▶ MODE:KIRARA
PICTURE 100
COLOR 60
BRIGHT 50
HUE 00
SHARPNESS 70
NR: OFF
NORMAL

Audio control


▶ MODE:MUSIC
BASS 80
TREBLE 80
BALANCE 00
SURROUND:OFF
NORMAL

4 Adjust the item. (See the table on page 24.)

5 Press MENU to turn off the menu.



Effect of each control

Picture

Item	Press	Effect
MODE	ENTER	→ KIRARA → MIDDLE → SOFT
PICTURE	Δ/∇ → ENTER	Less ········ More
COLOR	Δ/∇ → ENTER	Less ········ More
BRIGHT	Δ/∇ → ENTER	Darker ········ Brighter
HUE	Δ/∇ → ENTER	Greenish ···· | ···· Reddish (for NTSC signal only)
NR[1]:	ENTER	→ OFF → ON
NORMAL	ENTER	"NORMAL" becomes red in a moment and the settings are reset to the factory preset levels.

1) Noise reduction. Set to ON when the picture is noisy because of a weak signal or tape deterioration.

Sound

Item	Press	Effect
MODE	ENTER	→ MUSIC → STANDARD → NEWS
BASS	Δ/∇ → ENTER	Less ········ More
TREBLE	Δ/∇ → ENTER	Less ········ More
BALANCE	Δ/∇ → ENTER	Left speaker ···· | ···· Right speaker
SURROUND	ENTER	→ OFF → MUSIC[2] → MOVIE[3] → SPACE[4]
NORMAL	ENTER	"NORMAL" becomes red in a moment and the settings are reset to the factory preset levels.

2) MUSIC mode is effective for music programs.
3) MOVIE mode is effective for movie programs.
4) SPACE mode gives spacious monaural sound.

Note

When the menu is displayed, you cannot change the program using the number buttons. Use PROGR/PAGE +/–.

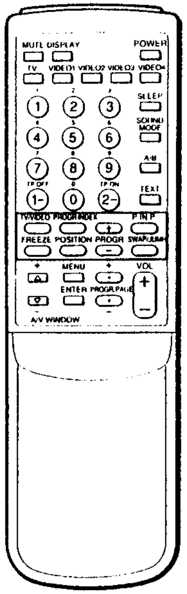
Selecting the Sound Mode

You can select a proper sound mode in accordance with the program.
Select the sound mode by pressing SOUND MODE.

MUSIC	Music program: The high and low tones are emphasized.
STANDARD	Standard sound
NEWS	News program: The person's voice becomes easy to hear.

Picture In Picture (P IN P)

Buttons for P IN P operation



With this function you can display a "P IN P screen" (small picture) within the main picture of TV program or video input. In this way you can watch or monitor TV program or the video input from any connected equipment while watching TV or other video input. For information about connection of other equipment, see page 29.

Switching P IN P on and off

Press P IN P.
The P IN P screen is displayed. The P IN P picture comes from the source chosen when the TV was last used.

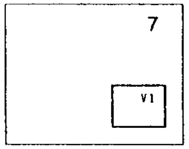
To switch P IN P off
Press P IN P again.

Selecting a P IN P source

To select a TV program, use PROGR + and – buttons of the P IN P section.
To select a video input, press TV/VIDEO.

Each time you press TV/VIDEO, the indication at the top right corner of the P IN P screen changes:

→ TV program number → V1 → V2 → V3 → V4

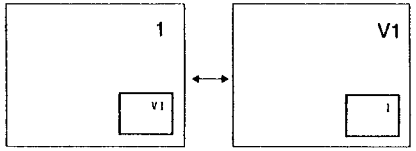


Notes

- If no video source has been connected, the P IN P screen is black.
- You may not be able to receive some channels in P IN P, even though they are being received for the main picture.
- If you display the signals for different color systems (PAL, SECAM, NTSC) for the main picture and in the P IN P, size of the P IN P may be different.
- If a TV channel in which no program is broadcast is received for the P IN P screen, the program number of P IN P may become black.

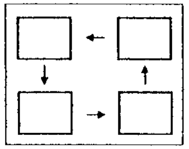
Swapping screens

Press SWAP.
The main screen switches the picture with the P IN P screen.

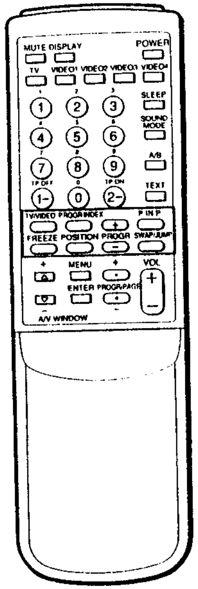


Changing the position of the P IN P

Press POSITION repeatedly to change the position of the P IN P screen. There are four different positions available.



Picture In Picture (P IN P)


MUTE
DISPLAY
POWER
TV
VIDEO1
VIDEO2
VIDEO3
VIDEO4
SLEEP
SOUND MODE
A/B
TEXT
TV/VIDEO
PROGR INDEX
P IN P
FREEZE
POSITION
PROGR
SWAP/JUMP
MENU
ENTER
PROGR/PAGE
VOL
A/V WINDOW

Freezing the P IN P picture

Press FREEZE.
To restore the normal picture, press FREEZE again.

Note

If you press FREEZE when there is no P IN P screen, the main picture is frozen and appears in the P IN P screen.

Checking the programs available

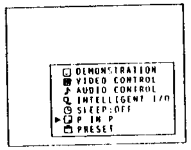
Press PROGR INDEX. The preset programs appear in the P IN P screen one by one in sequence.
To stop checking programs, press PROGR INDEX.

Operating P IN P using the menu or on the TV

Use the MENU, ENTER, Δ and ∇ buttons on the Remote Commander or on the TV.

Using the menu, you can change the P IN P size and adjust the P IN P headphones volume to hear through the headphones besides the above operations (except freezing).

1 Press MENU.
2 Move the red cursor to "P IN P" using Δ or ∇, then press ENTER.


DEMONSTRATION
VIDEO CONTROL
AUDIO CONTROL
INTELLIGENT I/O
SLEEP:OFF
▶ P IN P
PRESET

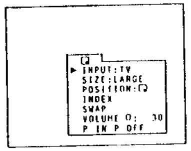
3 Move the red cursor to the item you want to set using Δ or ∇, then press ENTER.

INPUT: → TV → VIDEO 1 → VIDEO 2 → VIDEO 3 → VIDEO 4

SIZE: → SMALL → LARGE

POSITION: → □ → □ → □ → □

INDEX: Performed on the P IN P screen.
SWAP: Performed on the TV.
VOLUME: Adjust using Δ or ∇, then press ENTER.
P IN P OFF: The P IN P screen disappears.

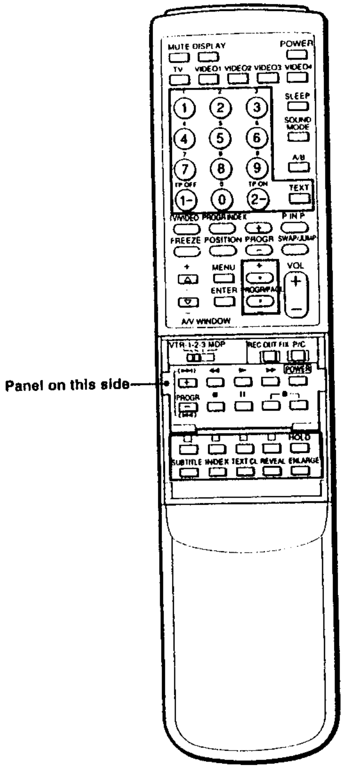

▶ INPUT:TV
SIZE:LARGE
POSITION:
INDEX
SWAP
VOLUME: 30
P IN P OFF

Notes

- When you display a VTR picture at speeds other than normal speed, such as fast-forward playback, on the P IN P screen, the picture may be noisy depending on the VTR. The picture may be improved by selecting the "SMALL" size of the P IN P screen.
- You cannot hear the sound of the NICAM and German stereo/bilingual system program in the P IN P picture.
- While fast-forwarding or reversing the picture of a PAL system signal on an 8 mm VTR, the picture may be distorted.

Teletext

Buttons for teletext operation


Panel on this side
MUTE
DISPLAY
POWER
TV
VIDEO1
VIDEO2
VIDEO3
VIDEO4
SLEEP
SOUND MODE
A/B
TEXT
TV/VIDEO
PROGR INDEX
P IN P
FREEZE
POSITION
PROGR
SWAP/JUMP
MENU
ENTER
PROGR/PAGE
VOL
A/V WINDOW
VTR 1-2-3 MDP
REC OUT FIX
P/C
POWER
PROGR
HOLD
SUBTITLE
INDEX
TEXT CL
REVEAL
ENLARGE

TV stations broadcast an information service called Teletext via a TV channels. Teletext service allows you to receive various information pages such as weather reports or news at any time you want.

Switching Teletext on and off

1 Select the TV channels which carries the teletext broadcast you want to watch.
2 Press TEXT to switch on the teletext.
  A teletext page will be displayed (usually the index page).
  If there is no teletext broadcast, P100 is displayed at the top left corner of the screen.

To switch Teletext off
Press TV.

Superimposing a Teletext page on the TV picture (MIX mode)

Press TEXT.
Each time you press TEXT, the screen changes:

→ Teletext → Teletext and TV → TV

Checking the contents of the Teletext

Press INDEX to have the overview of the contents of the teletext and page numbers.

Selecting a Teletext page

Use the number buttons to input the three digits of the page number you want to turn on.

If you have made a mistake, type in any three digits. Then re-enter the correct page number.

To access the next or preceding page, press PAGE + or PAGE –.

Holding a Teletext page

A teletext page may consist of several subpages. You can stop the page scrolling in order to read the text at your own pace.

Press HOLD.
The HOLD symbol " ⊟ " is displayed at the top left of the screen.
To resume normal teletext operation, press TEXT.

Enlarging the Teletext display

Press ENLARGE once to enlarge the upper half, twice to enlarge the lower half, and again to resume normal size.

Revealing concealed information

Sometimes pages contain concealed information, such as an answer to a quiz. The reveal option lets you disclose the information.

Press REVEAL.
To conceal the information, press REVEAL again.

Displaying subtitles

Press SUBTITLE.
To make the subtitle disappear, press SUBTITLE again.

Teletext

Waiting for Teletext page while watching the TV program

After requesting a page, press TEXT CLEAR.
When the page is available, the page number is displayed at the top left corner of the screen.
Press TEXT to switch the teletext on.

Displaying Teletext page at predetermined time

1 Request a time coded page (e.g. alarm page).
2 Press TP ON.
"T****" appears at the bottom of the screen.
3 Enter your request time of four digits using the number buttons. For example, if you enter 0730, the indication will become "T0730".
4 To watch the TV program, press TEXT CLEAR.
5 At the requested time, the page number is displayed at the top left corner of the screen.
To view the page, press TEXT.
To cancel the page, press TP OFF.

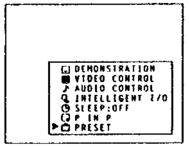
Using Fastext

With Fastext you can access pages with one key stroke.
When a Fastext page is broadcast, a color-coded menu will appear at the bottom of the screen. The colors of this menu correspond to the RED, GREEN, YELLOW and CYAN buttons on the Remote Commander.
Press the color button which corresponds to the color-coded menu. The page will be displayed after some seconds.

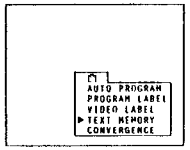
Switching to a Teletext page you want directly while watching a TV

Using the menu, you can set teletext pages you want so that you can switch to the pages directly while watching a TV by pressing a color button.

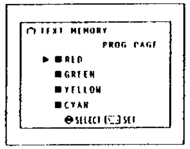
To set the page
1 Press MENU.
2 Move the red cursor to "PRESET" using Δ or ∇, then press ENTER.



3 Move the red cursor to "TEXT MEMORY" using Δ or ∇, then press ENTER.



4 Move the red cursor to a color you want using Δ or ∇, then press ENTER.
The colors correspond to the color of the buttons.



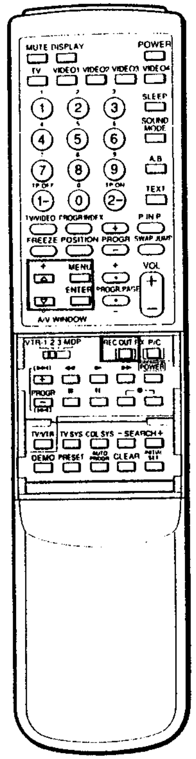
5 Press the program number button and press ENTER.
For the program number 5, press "5".
For the program number 25, press "2–" and "5".
6 Press the page number button of three digits and press ENTER.
If you made a mistake, enter any three digits and then enter the correct three digits.
If you want to cancel the operation, press "9" for the first digit.
7 Repeat steps 4 to 6 for other pages.
8 Press MENU to return to the TV display.

To view the page, press the color button of the page while watching the TV.

Note

The color buttons function as the FAST TEXT buttons in Teletext mode.

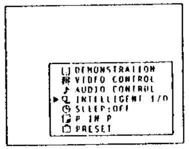
Selecting Input and Output


MUTE
DISPLAY
POWER
TV
VIDEO1
VIDEO2
VIDEO3
VIDEO4
SLEEP
SOUND MODE
A.B
TEXT
P IN P
FREEZE
POSITION
PROGR
SWAP JUMP
MENU
ENTER
VOL
A/V WINDOW
VTR 1 2 3 MDP
REC OUT FIX
P/C
POWER
PROGR
TV/VTR
TV SYS
COL SYS
SEARCH
DEMO
PRESET
CLEAR

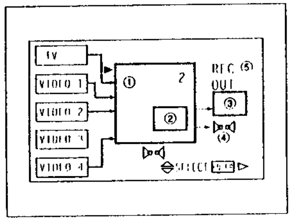
Using the INTELLIGENT I/O function, you can:
—record a source while watching the source.
—record a source while watching another source.
—record picture and sound from different sources.
—record a source while the TV is in standby mode.

Setting the INTELLIGENT I/O

1 Press MENU.
2 Move the red cursor to "INTELLIGENT I/O" using Δ or ∇, then press ENTER.


DEMONSTRATION
VIDEO CONTROL
AUDIO CONTROL
INTELLIGENT I/O
SLEEP:OFF
P IN P
PRESET

3 Select the item using Δ or ∇, then press ENTER.
The color of the box or speaker mark becomes the color of the source selected.
① Select the source to watch on the TV.
② Select the source to be displayed on the P IN P screen.
③ Select the video to be recorded.
④ Select the sound to be recorded.
⑤ Make REC OUT in red or in white.
Red: The REC OUT FIX is on. The REC OUT FIX lamp lights. The recording source is fixed, therefore, even if you change the source to watch, the recording source does not change.
White: The REC OUT FIX is off. The REC OUT FIX lamp is off. The recording source changes accordingly when you change the source to watch.


TV
VIDEO 1
VIDEO 2
VIDEO 3
VIDEO 4
①
2
②
REC OUT
⑤
③
(4)
SELECT

4 Press MENU to go back to the normal TV picture.

To change the program or video input after recording has started, or to turn off the TV (standby)

- If you did not make "REC OUT" in red on the INTELLIGENT I/O page (the REC OUT FIX lamp is not lit), press REC OUT FIX on the Remote Commander.
- If you made "REC OUT" in red (the REC OUT FIX lamp is lit), you do not need any operation.

When you set the INTELLIGENT I/O the next time

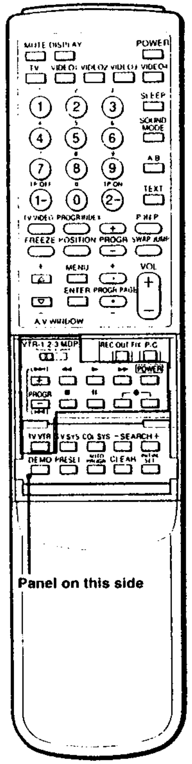
Make the "REC OUT" in white, if it is in red.

Notes

- After you started recording, do not turn off the TV by pressing the POWER switch of the TV. The recording stops.
- If you call the INTELLIGENT I/O page while watching the TV, the P IN P is displayed. To turn P IN P off, press P IN P.
- If you change TV program while recording a TV program, the newly selected TV program is recorded, even if you set the REC OUT FIX to on.

Remote Control of Other Sony Equipment

Buttons for VTR operation


MUTE
DISPLAY
POWER
TV
VIDEO1
VIDEO2
VIDEO3
VIDEO4
SLEEP
SOUND MODE
A.B
TEXT
P IN P
FREEZE
POSITION
PROGR
SWAP JUMP
MENU
ENTER
VOL
A/V WINDOW
VTR 1 2 3 MDP
REC OUT FIX
P/C
POWER
PROGR
TV/VTR
TV SYS
COL SYS
SEARCH
DEMO
PRESET
CLEAR

Panel on this side

You can use the TV Remote Commander to control other remote-controlled video equipment such as Beta, 8mm, VHS VTRs or multi disc players.

Tuning the Remote Commander to the equipment

1 Set the VTR 1-2-3-MDP selector according to the equipment you want to control.
VTR 1: Beta or ED Beta VTR
VTR 2: 8mm VTR
VTR 3: VHS VTR
MDP: Multi disc player

2 Use the buttons indicated in the illustration to operate the additional equipment.

If your video equipment is furnished with a COMMAND MODE selector, set this selector to the same position as the VTR 1-2-3-MDP selector on the TV Remote Commander.

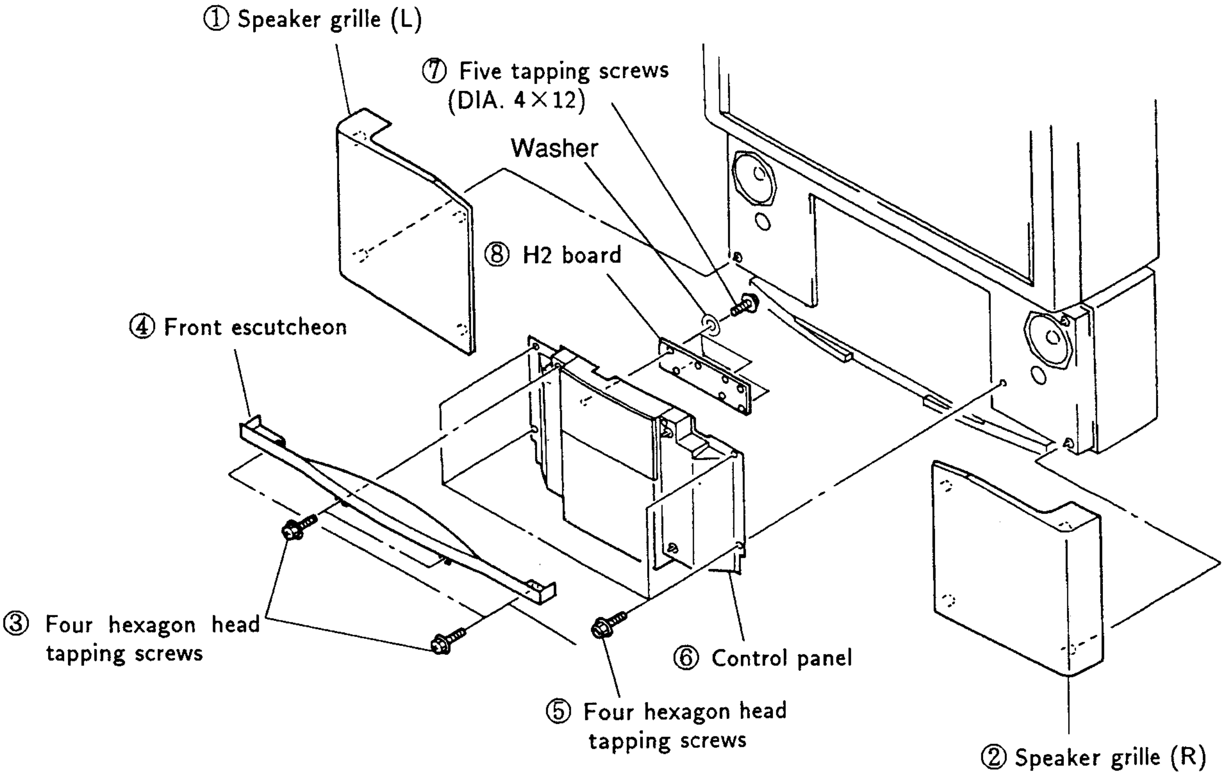
If the equipment does not have a certain function, the corresponding button on the Remote Commander will not operate.

When recording

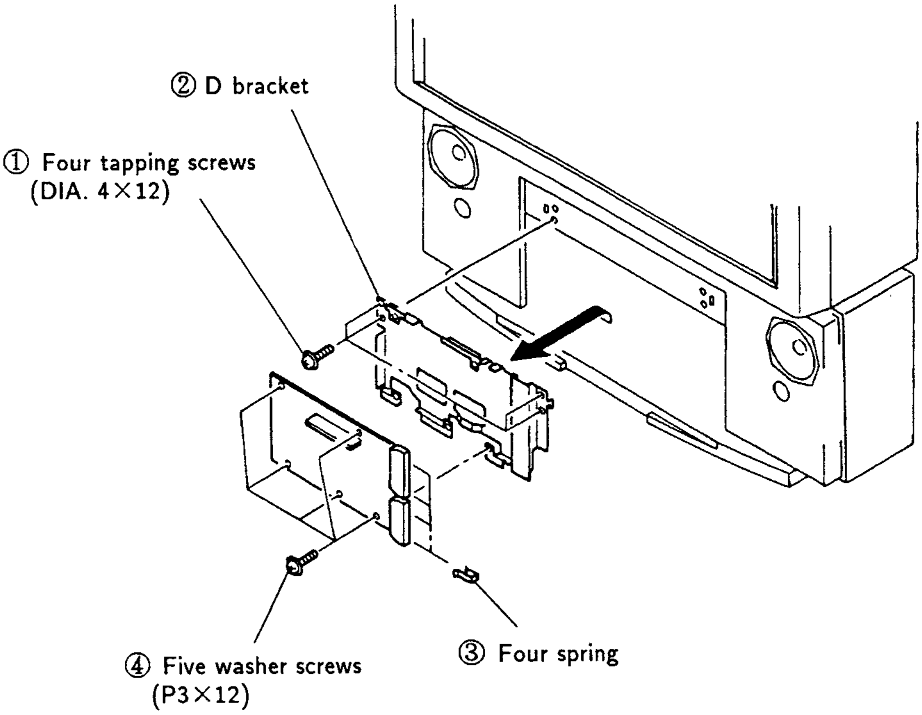
When you use the ● (record) button, make sure to press these two buttons simultaneously.

SECTION 2
DISASSEMBLY

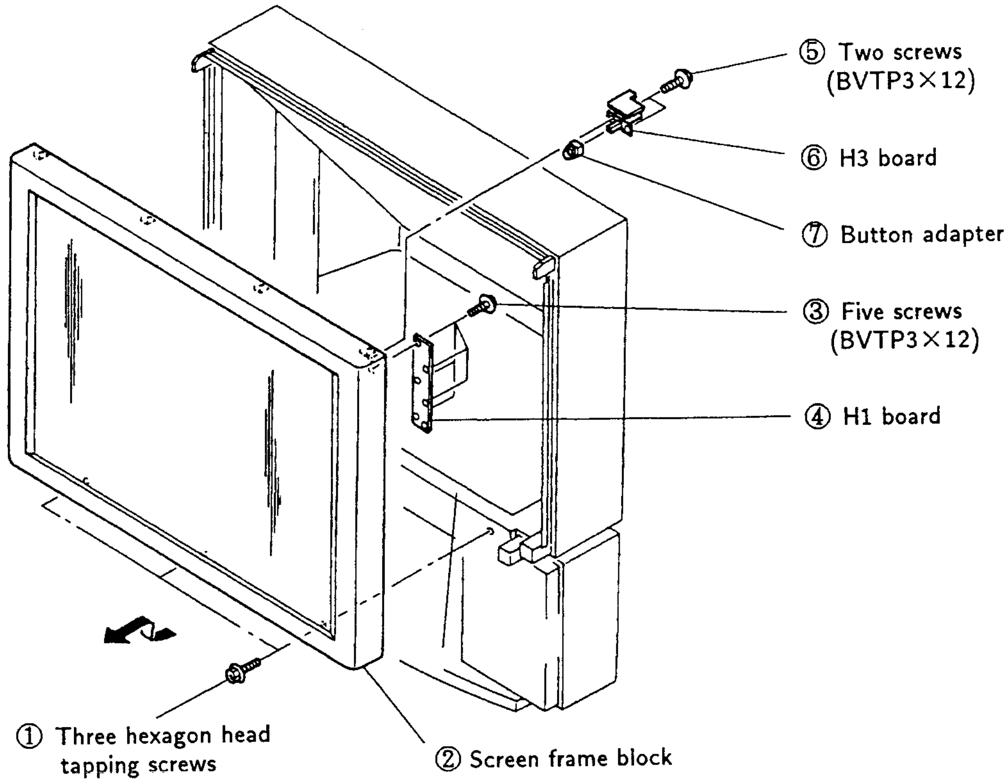
2-1. H2 BOARD REMOVAL


① Speaker grille (L)
⑦ Five tapping screws (DIA. 4×12)
Washer
⑧ H2 board
④ Front escutcheon
③ Four hexagon head tapping screws
⑥ Control panel
⑤ Four hexagon head tapping screws
② Speaker grille (R)

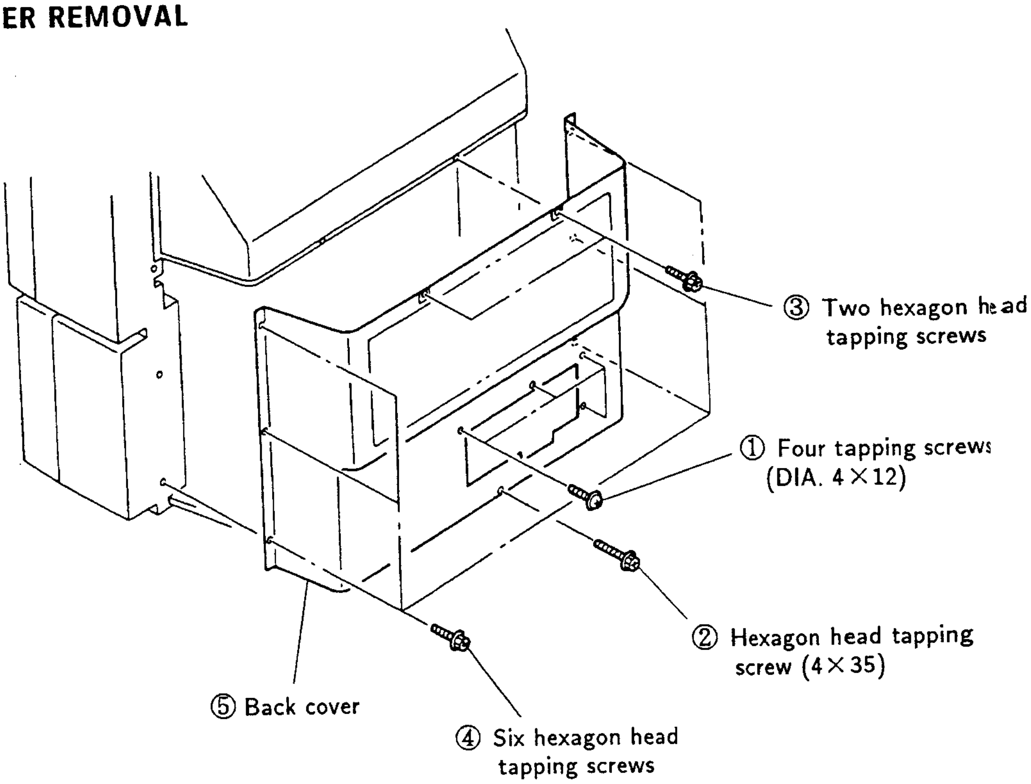
2-2. D BOARD REMOVAL


② D bracket
① Four tapping screws (DIA. 4×12)
④ Five washer screws (P3×12)
③ Four spring

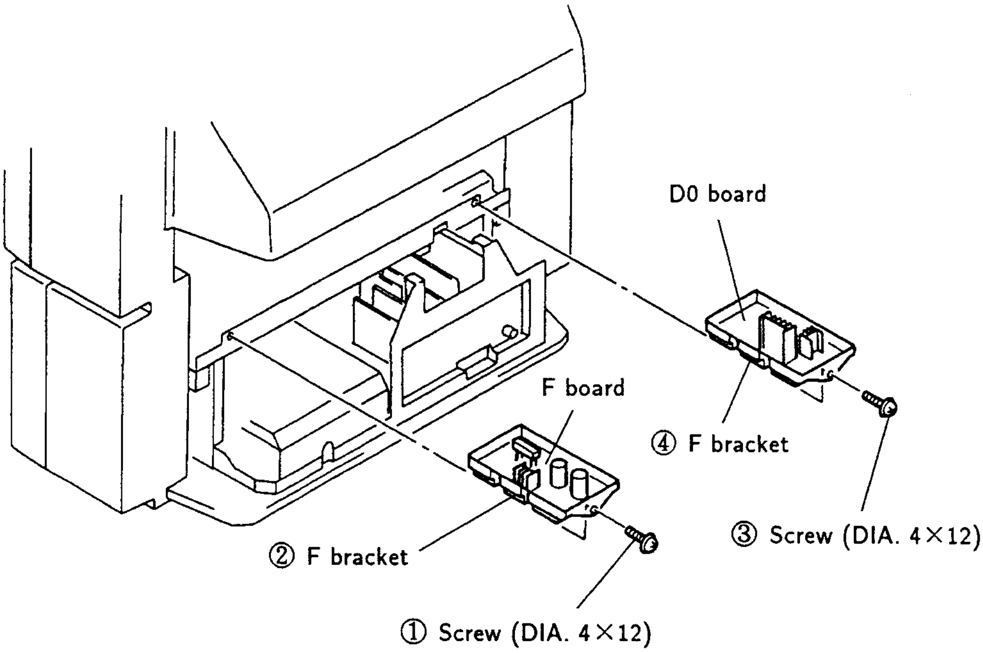
2-3. H1 AND H3 BOARDS REMOVAL


⑤ Two screws (BVTP3×12)
⑥ H3 board
⑦ Button adapter
③ Five screws (BVTP3×12)
④ H1 board
① Three hexagon head tapping screws
② Screen frame block

2-4. BACK COVER REMOVAL

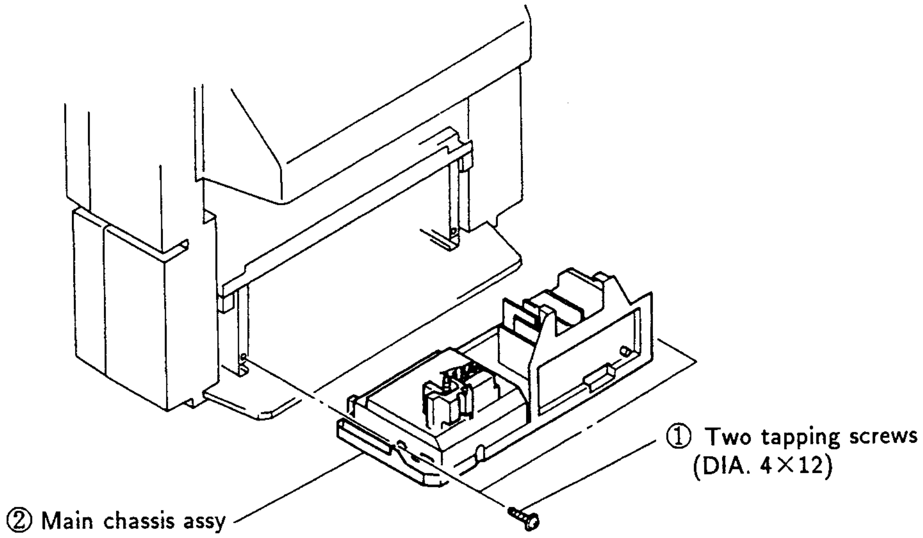

③ Two hexagon head tapping screws
① Four tapping screws (DIA. 4×12)
② Hexagon head tapping screw (4×35)
⑤ Back cover
④ Six hexagon head tapping screws

2-5. F BRACKET REMOVAL

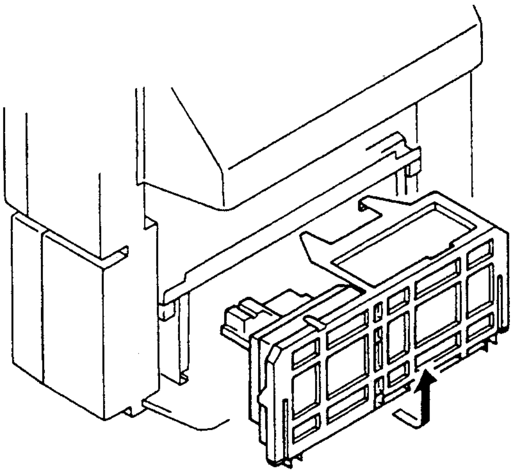

D0 board
F board
④ F bracket
③ Screw (DIA. 4×12)
② F bracket
① Screw (DIA. 4×12)

2-6. MAIN CHASSIS ASSY REMOVAL AND SERVICE POSITION

(1) MAIN CHASSIS ASSY REMOVAL



(2) SERVICE POSITION



NOTES INSERTED IN SERVICE POSITION SECTION

Service Position Procedure

1) Remove the path locks where the harness comes into. (MAIN bracket, G shield)
2) Remove the following connectors before removing the main bracket.
   ※ HV grounding lead, G shield grounding lead, V-2 connector (V board).
3) Remove the main bracket. (Take care as the connector leads linking to the C and Z boards are considerably short).
4) Before power ON, be sure to connect the connectors removed.
   ※ HV grounding lead, G shield grounding lead.

In case that grounding lead (Black) of HV Block is not connected with chassis grounding, it causes arcing of CRT and it is dangerous.

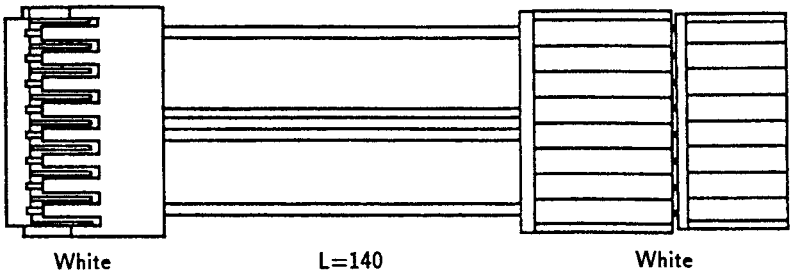
Be sure to connect grounding lead of HV Block with chassis grounding.

(3) CONNECTOR CABLES

※ **In order to put the set in the service position, use the extension connector cables below.**

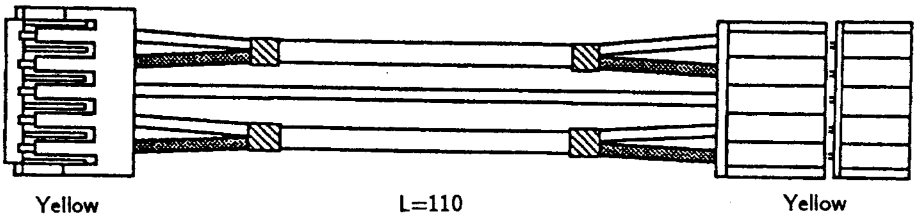
Parts No.	Connection
1-941-897-38	CB-4toCN1652(G BOARD)

1 : Brown
2 : —
3 : —
4 : Yellow
5 : Green
6 : —
7 : —
8 : Gray


White
L=140
White

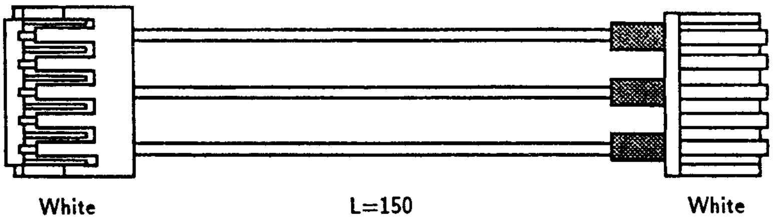
Parts No.	Connection
1-941-897-39	CG-16toCN1608(A BOARD)

1 : White/Gray
2 : Gray/Shield
3 : Orange
4 : Red/Gray
5 : Gray/Shield


Yellow
L=110
Yellow

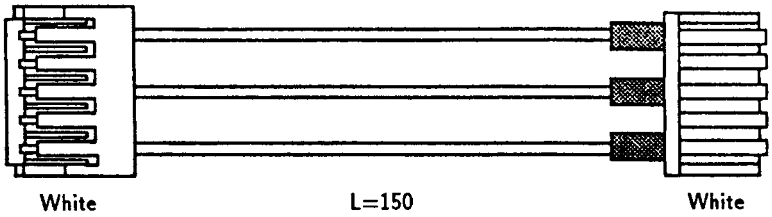
Parts No.	Connection
1-941-897-40	ZG-19toCN1308(DO BOARD)

1 : Green
2 : —
3 : Black
4 : —
5 : Brown


White
L=150
White

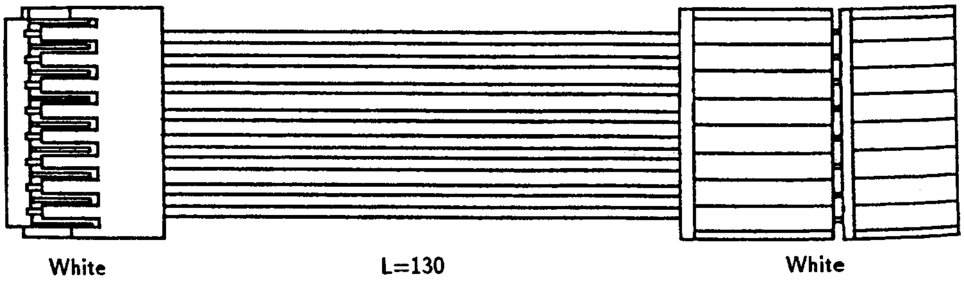
Parts No.	Connection
1-941-897-41	ZR-18toCN1306(DO BOARD)

1 : Red
2 : —
3 : Black
4 : —
5 : Brown

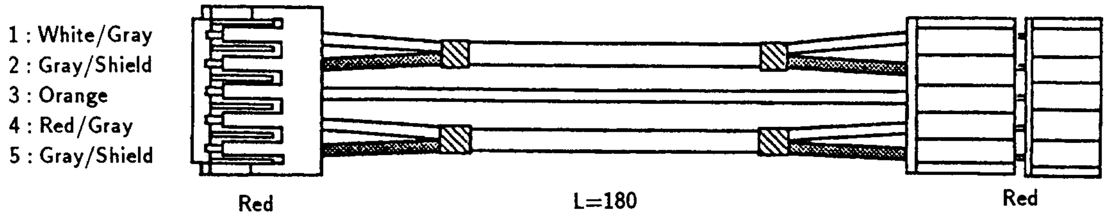

White
L=150
White

Parts No.	Connection
1-941-897-42	ZG-2toD-2

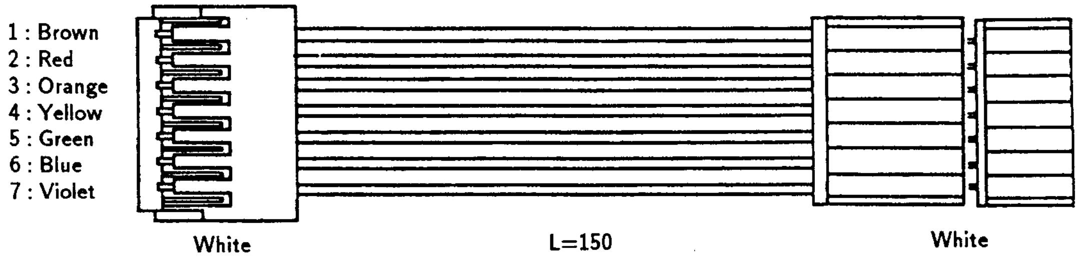
1 : —
2 : Red
3 : Orange
4 : Yellow
5 : Green
6 : Blue
7 : Violet
8 : Gray


White
L=130
White

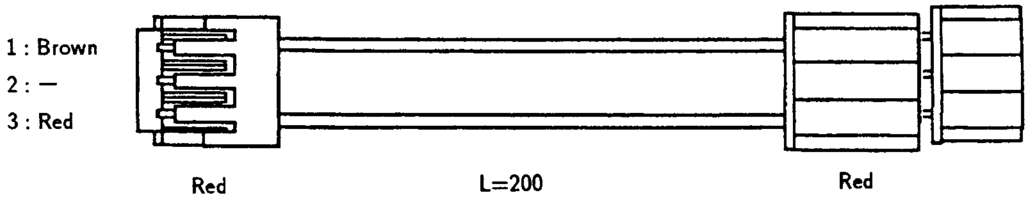
Parts No.	Connection
1-941-897-43	CR-15toCN1609(A BOARD)


1 : White/Gray
2 : Gray/Shield
3 : Orange
4 : Red/Gray
5 : Gray/Shield
Red
L=180
Red

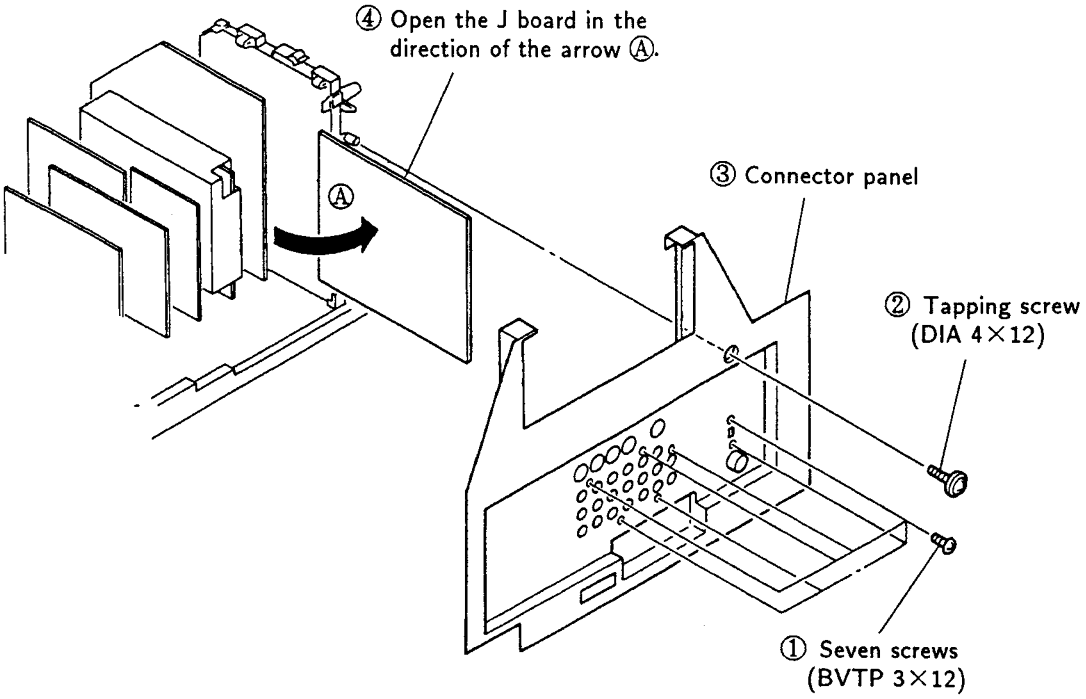
Parts No.	Connection
1-941-897-44	ZR-1toD-1


1 : Brown
2 : Red
3 : Orange
4 : Yellow
5 : Green
6 : Blue
7 : Violet
White
L=150
White

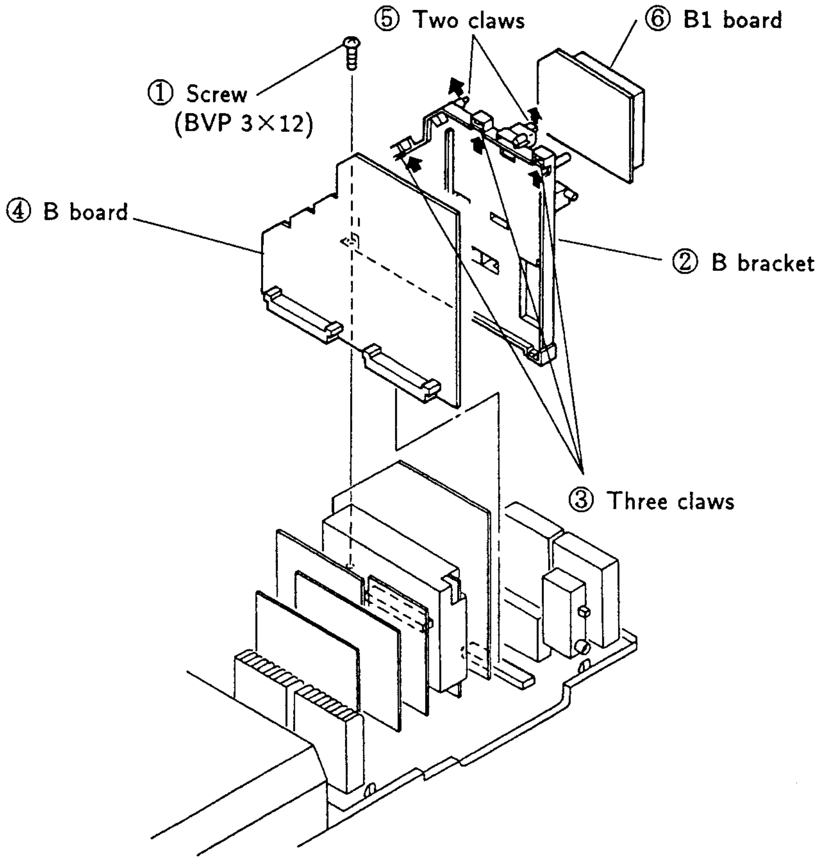
Parts No.	Connection
1-941-897-46	CN515 (A BOARD) to ZG-3


1 : Brown
2 : —
3 : Red
Red
L=200
Red

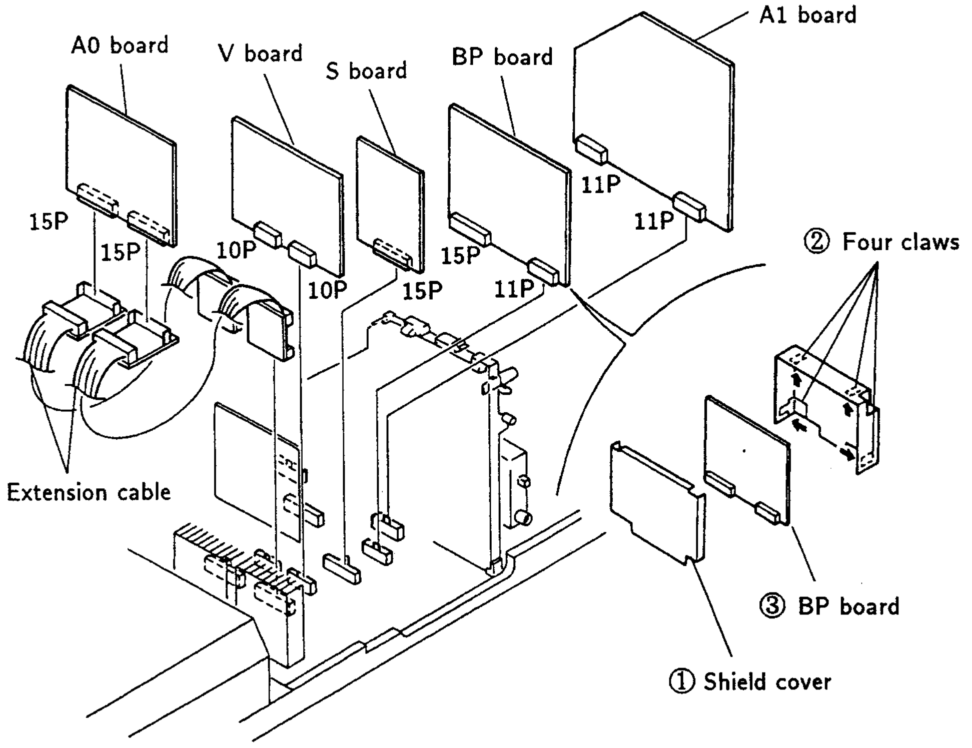
2-7. J BOARD REMOVAL


④ Open the J board in the direction of the arrow Ⓐ.
Ⓐ
③ Connector panel
② Tapping screw (DIA 4×12)
① Seven screws (BVTP 3×12)

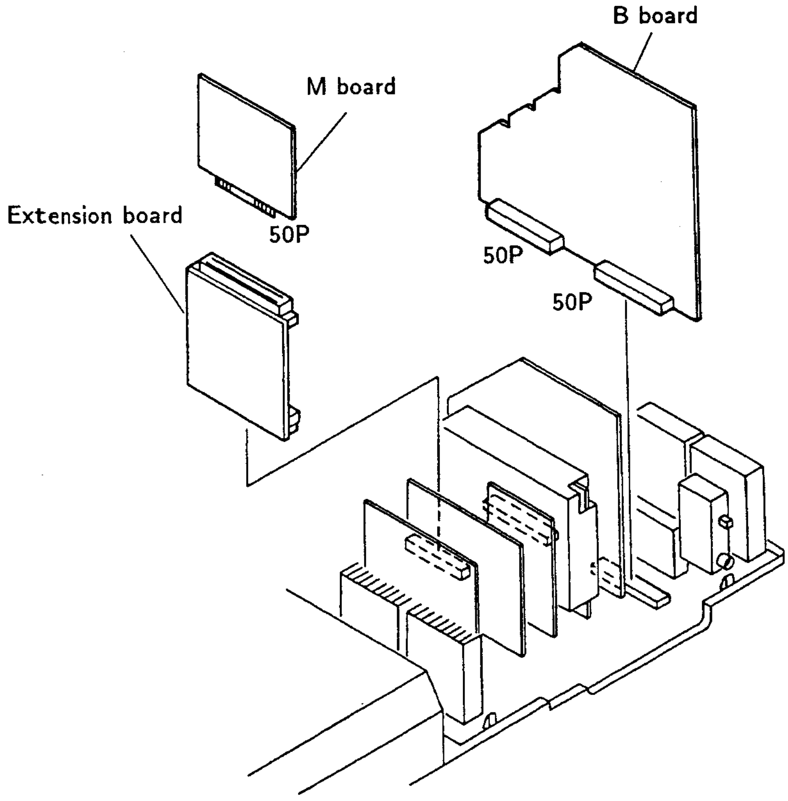
2-8. B AND B1 BOARDS REMOVAL


⑤ Two claws
⑥ B1 board
① Screw (BVP 3×12)
④ B board
② B bracket
③ Three claws

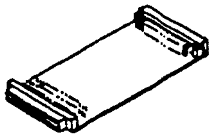
2-9. EXTENSION CABLE


A1 board
A0 board
V board
S board
BP board
15P
15P
10P
10P
15P
15P
11P
11P
11P
② Four claws
Extension cable
③ BP board
① Shield cover

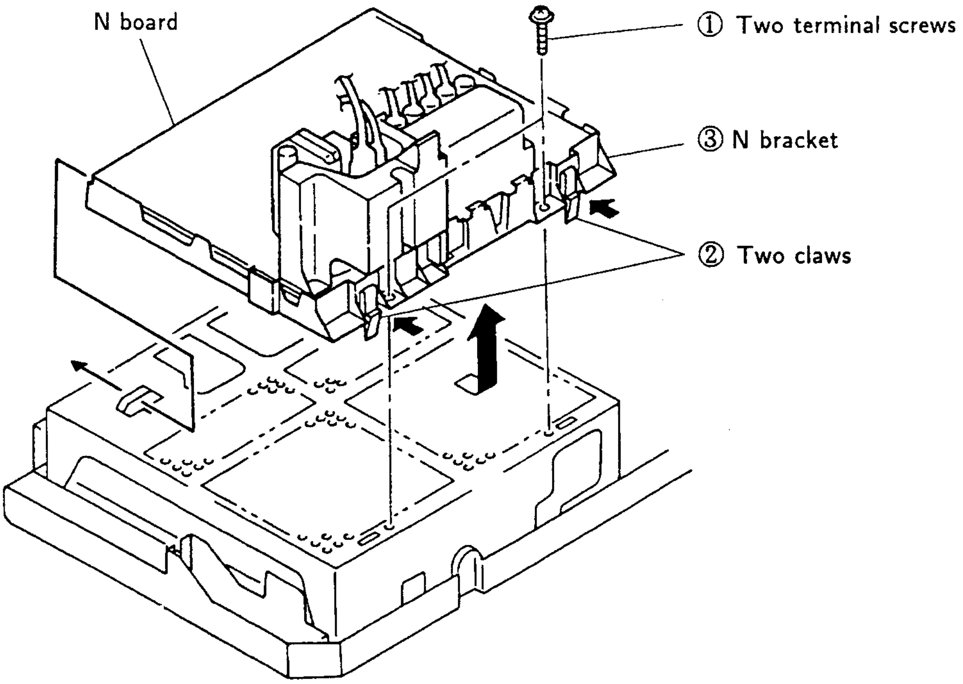
2-10. EXTENSION BOARD


B board
M board
Extension board
50P
50P
50P

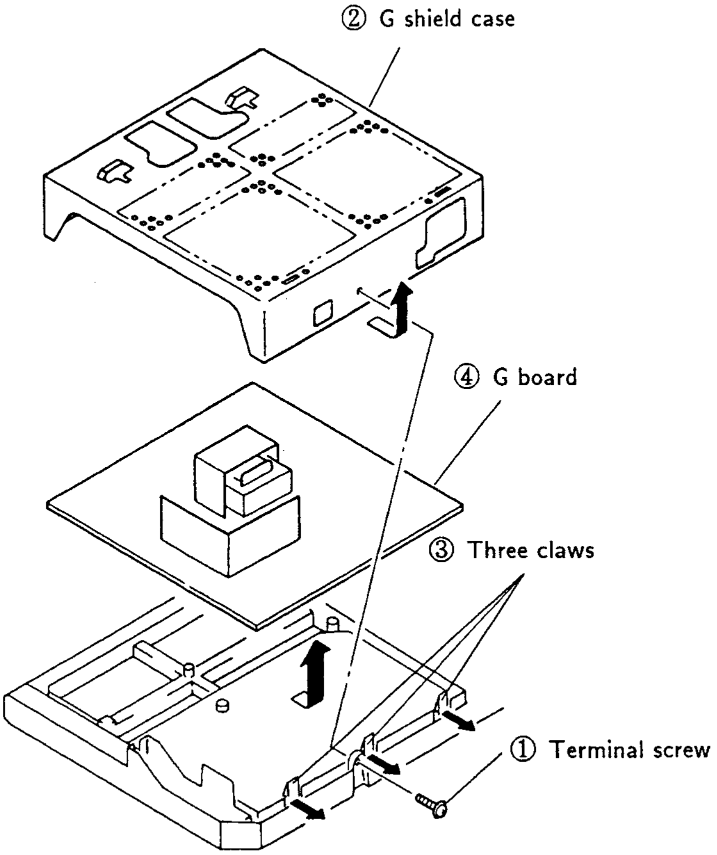
EXTENSION CABLES AND EXTENSION BOARDS LIST

B board	3-702-556-01	50P	2
V board	3-702-108-01	10P	1
A1 board	3-702-564-01	11P	2
BP board	3-702-564-01	11P	1
	3-702-565-01	15P	1
S board	3-702-565-01	15P	1
A0 board	3-702-565-01	15P	2
M board	3-702-560-01 50pin connector		
	3-702-556-01  Extension board		

2-11. N BRACKET REMOVAL

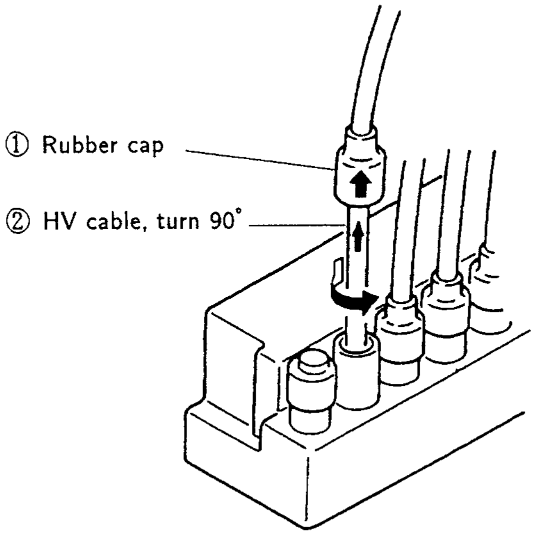

N board
① Two terminal screws
③ N bracket
② Two claws

2-12. G BOARD REMOVAL

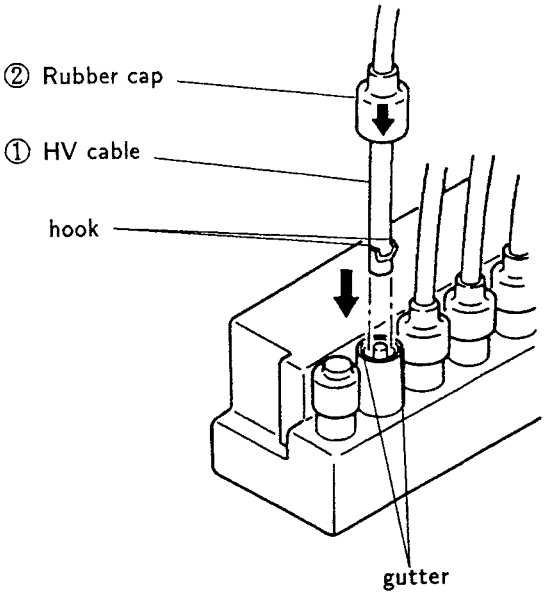

② G shield case
④ G board
③ Three claws
① Terminal screw

2-13. HIGH-VOLTAGE CABLE INSTALLATION AND REMOVAL

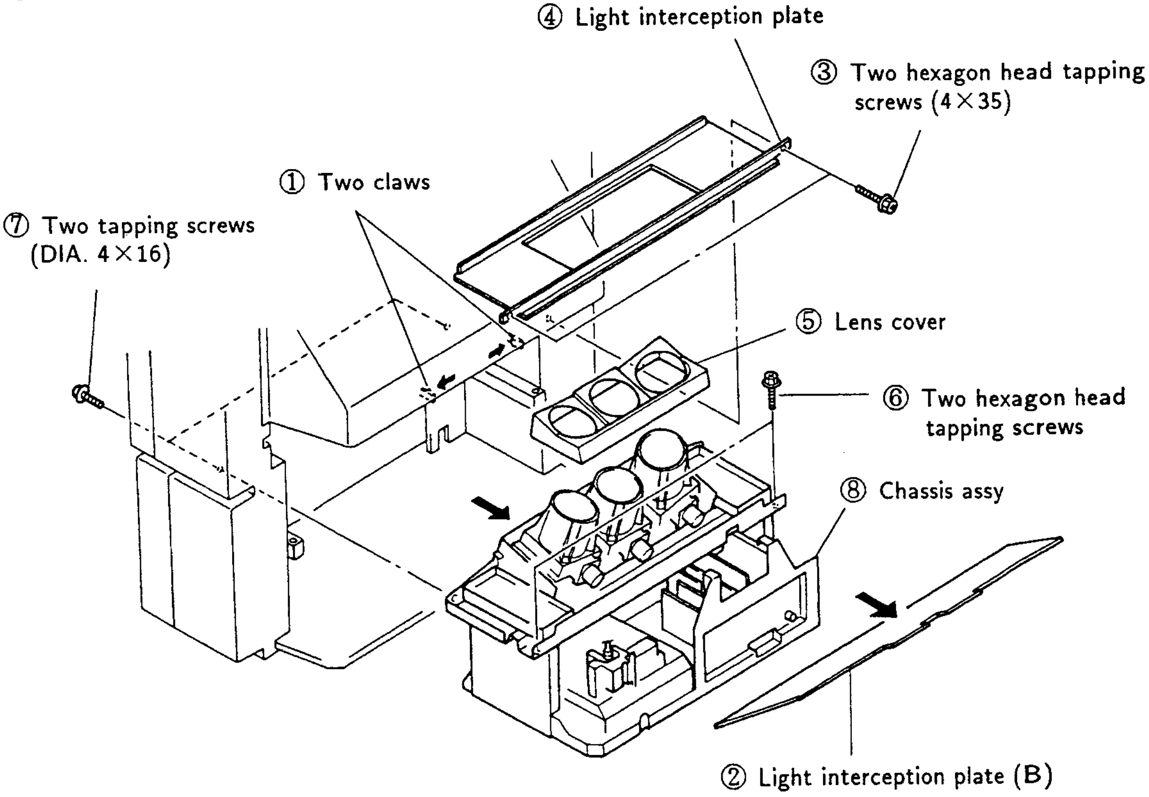
(1) Remover


① Rubber cap
② HV cable, turn 90°

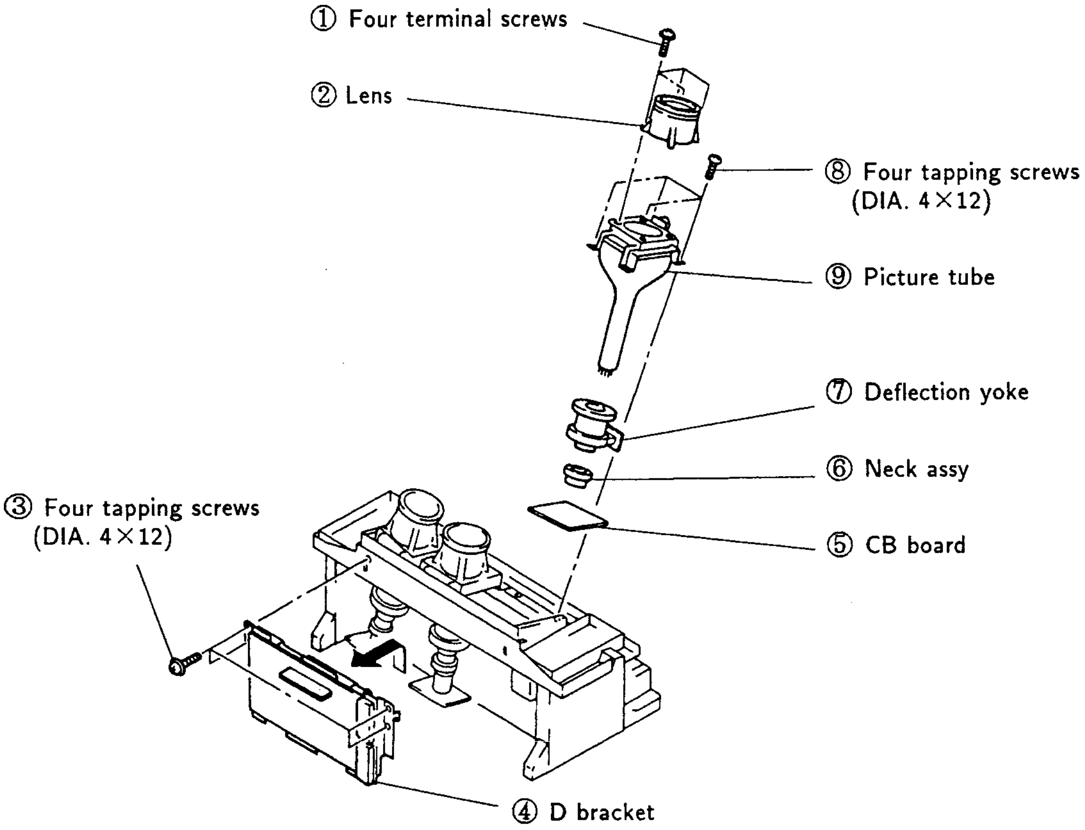
(2) Installation


② Rubber cap
① HV cable
hook
gutter

2-14. CHASSIS ASSY REMOVAL


④ Light interception plate
③ Two hexagon head tapping screws (4×35)
① Two claws
⑦ Two tapping screws (DIA. 4×16)
⑤ Lens cover
⑥ Two hexagon head tapping screws
⑧ Chassis assy
② Light interception plate (B)

2-15. PICTURE TUBE REMOVAL


① Four terminal screws
② Lens
⑧ Four tapping screws (DIA. 4×12)
⑨ Picture tube
⑦ Deflection yoke
⑥ Neck assy
③ Four tapping screws (DIA. 4×12)
⑤ CB board
④ D bracket

2-16. REPAIR OF CHIP COMPONENT CIRCUIT BOARD

2-16-1. POINTS OF COMPONENT REMOVAL

Handing of blower type soldering iron

If hot blast is too strong or applied from a slanting direction, small components and solder near the component being removed can be blown off. Do not use blower type without temperature control.

2-16-2. NOTES ON SOLDERING FOR CHIP COMPONENTS

1) During soldering a chip component, if a soldering iron is applied for a long time, the heat may damage the component or cause pattern peeling.
2) Do not reuse a removed component. The characteristics of such a component may deteriorate.
3) Use wire solder containing silver (ϕ 0.3 or ϕ 0.6). (The pin electrodes of the laminated chip capacitor are silver +palladium, so if wire solder which does not contain silver is used, the silver of the pin electrode will be sucked into the solder.)

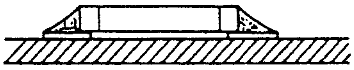
2-16-3. REMOVAL AND MOUNTING OF COMPONENTS

Chip resistor and chip capacitor

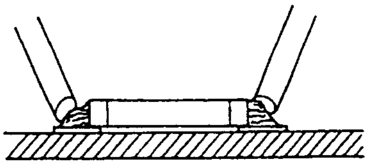
REMOVAL

- Using two soldering irons

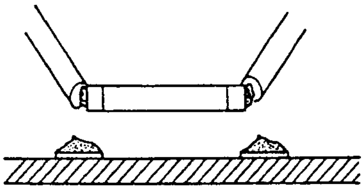
1) Mounted state



2)Melt the solder.

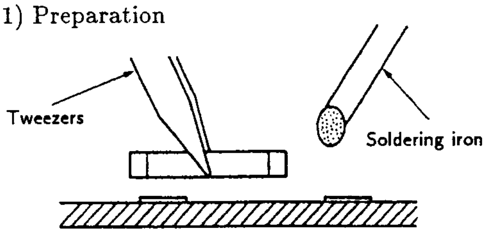


3)Remove the component.



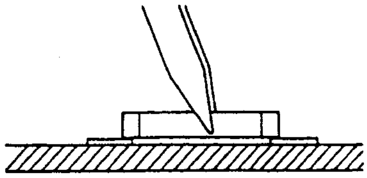
SOLDERING

1) Preparation

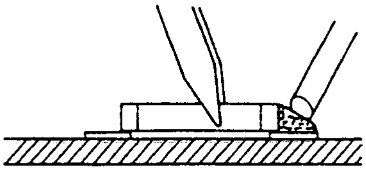


2) Location

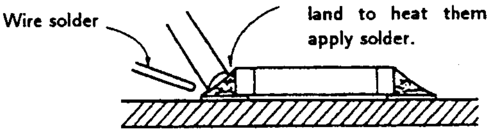
Be careful not to misposition.



3) Tack soldering and flux application

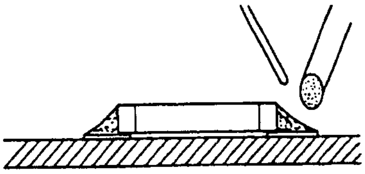


4) Soldering



Apply the soldering iron to the chip component and land to heat them and apply solder.

5) Soldering (Fix the fillet.)



6) Visual inspection

Check for the following defects :

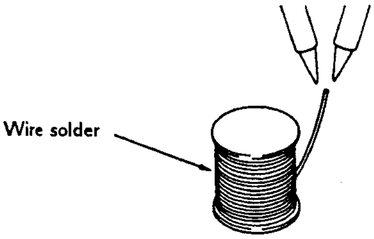
- No-soldered part
- Bridge (to other components or lands)
- Mispositioning
- Other defects

2-16-4. MINI-TRANSISTOR

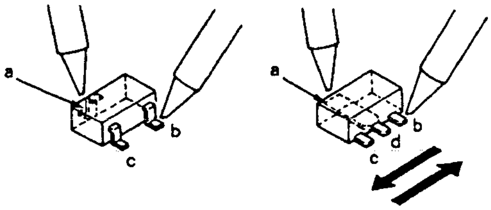
REMOVAL

- Using two soldering irons

1) Put a little solder on the tip of two soldering irons.

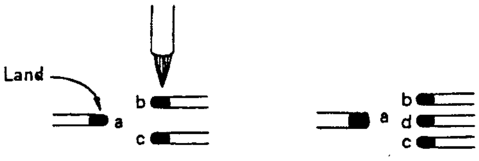

Wire solder

2) Apply the tip of one soldering iron to the point "a" and the other to the points "b" → "c" (or "b" → "d" → "c") and move the component in the directions indicated by arrows in the figure to remove it.

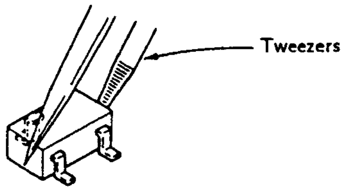


MOUNTING

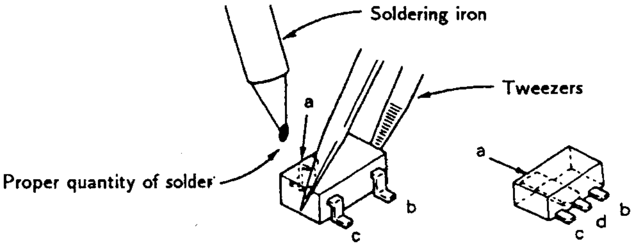
1) Apply a little flux to the land with a brush.


Land
b
a
c
b
a
d
c

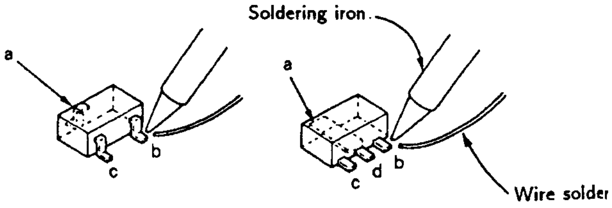
2) Place the component in position using tweezers.



3) Put a little solder on the tip of the soldering iron and solder the point "a" to fix the component.

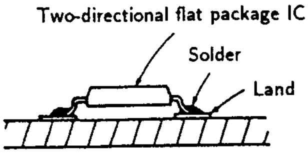

Soldering iron
Tweezers
a
Proper quantity of solder
b
c
a
b
d
c

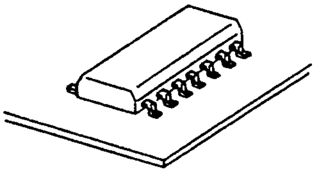
4) Bring the tip of the soldering iron and the wire solder close to the point to be soldered. Solder the points "b" → "c" (or "b" → "d" → "c") in order.


Soldering iron
a
b
c
a
b
d
c
Wire solder

2-16-5. TWO-DIRECTIONAL FLAT PACKAGE IC

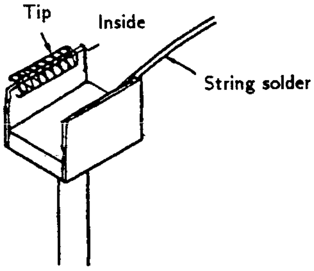
MOUNT CONDITION


Two-directional flat package IC
Solder
Land

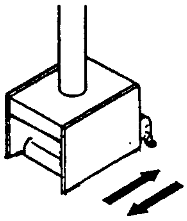


REMOVAL

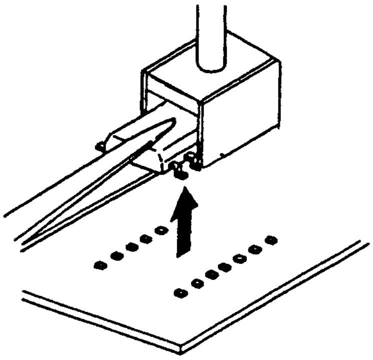
1) Apply some solder on the inside and the tip of the iron tip jig.


Tip
Inside
String solder

2) Place the iron tip jig over the IC, and move the jig to and fro as shown in the figure.

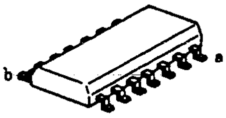


3) When the solder melts, lift the IC with a pair of tweezers and remove.

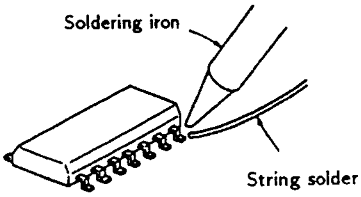


INSTALLATION

1) Place the two-directional flat package IC at the appointed position, solder pins a and b on the diagonal, and fasten it.

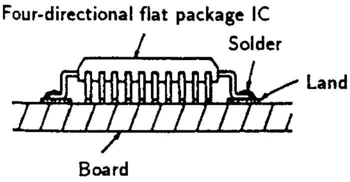


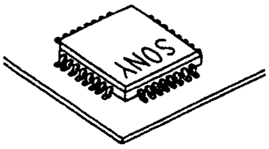
2) Solder the remaining pins with the soldering iron.


Soldering iron
String solder

2-16-6. FOUR-DIRECTIONAL FLAT PACKAGE IC

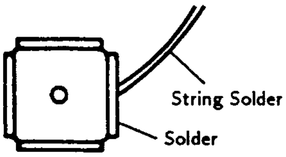
MOUNT CONDITION


Four-directional flat package IC
Solder
Land
Board

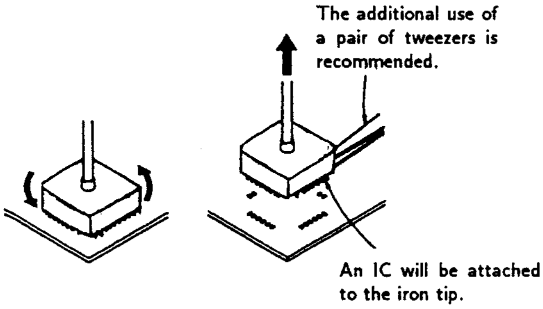


REMOVAL

1) Apply solder on the tip of the iron tip jig.


String Solder
Solder

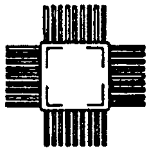
2) Place the iron tip jig over the IC, wait about two to three seconds, rotate the iron slightly and lift it up.


The additional use of a pair of tweezers is recommended.
An IC will be attached to the iron tip.

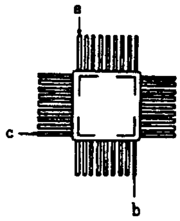
Note : For flat ICs of above 52P, the IC may not be completely attracted when the iron tip jig is lifted up. In these cases, use a pair of tweezers to remove.

INSTALLATION

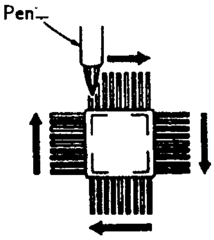
1) Place the four-directional flat package IC at the appointed position.



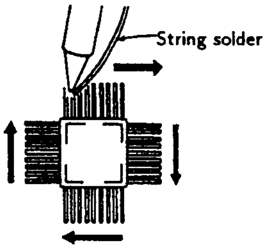
2) Apply a slight amount of solder on the iron tip, and solder the three sections in the order of a → b → c, and fix.



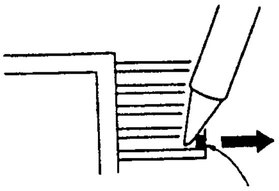
3) Apply a slight amount of flux with a pen on all four directions.



4) Apply solder on the iron tip and the string solder, and slide and solder in the directions of the arrows.


String solder

Note: 1) After soldering, if there are bridged sections, correct by sliding the soldering iron in the direction of the arrow.



If the bridges cannot be corrected using the above method, apply some flux with a pen and try again.

2) Soldering can be carried out more easily by sliding the iron tip near the tip of the IC leg. (Fig. A)

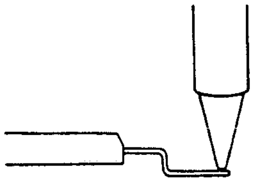


Fig. A

Be careful not to slide the bent sections of the leg as shown in Fig. B as soldering bridges will be formed.

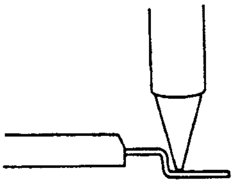
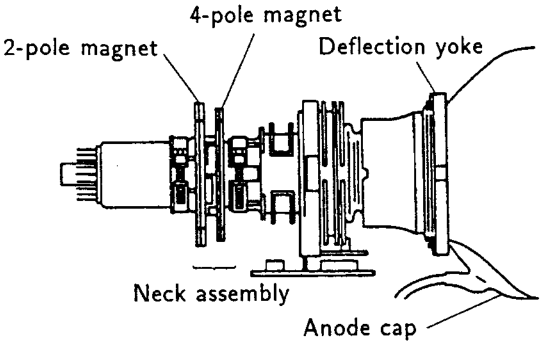


Fig. B

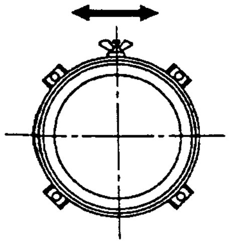
SECTION 3
SETUP ADJUSTMENTS

3-1. FOCUS LENS ADJUSTMENTS

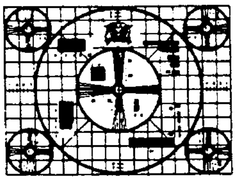
1. Set the D-board registration variable resistor (VR) and the position VR (CENTER VR) to mechanical.
2. Set the centering magnets (for red, green, and blue) to 0 as shown in the figure.

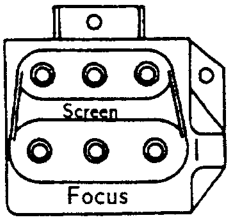


3. Input monoscope signal. Set 50% BRIGHTNESS and minimum PICTURE. Make rough adjustment so that 10IRE of the monoscope signal becomes faintly luminous.
4. Set PICTURE and BRIGHTNESS maximum. Press the commander menu button. Select CONVERGENCE to display test signal.
5. Enter service mode. Select R OFF of SERVICE MODE to cut off red output. Similarly, select B OFF to cut off blue output.
6. Turn the green lens to eliminate flare of the test signal.

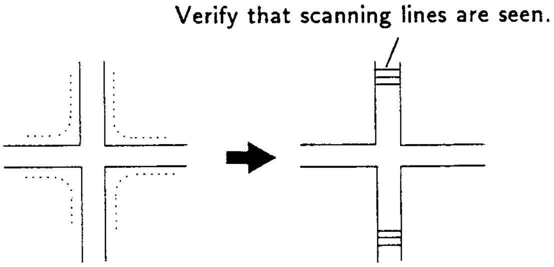


(Lens)

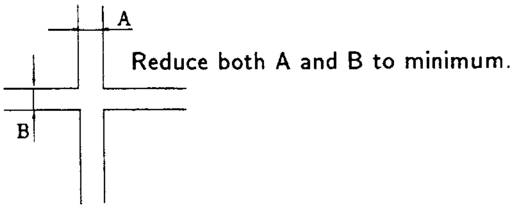




(Focus block)



7. Turn the green focus VR in the focus block to adjust green focus to reduce both A and B of the test signal to minimum.



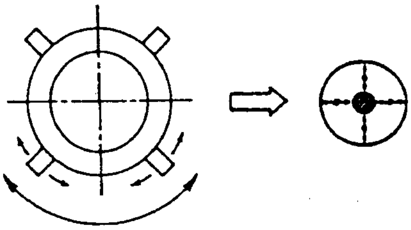
8. Repeat avobe 7. Couple of times to improve tracking and obtain an optimum lens focus. Then tighten the lens screws.

3-2. DEFLECTION YOKE POSITION ADJUSTMENTS

1. Input monoscope signal.
2. Enter service mode. Select R OFF of SERVICE MODE to cut off red output. Similarly, select B OFF to cut off blue output.
3. Loosen the deflection yoke (DY) fitting screws. Tilt the DY to obtain the best horizontal and vertical monoscope patterns.
4. After adjustment, press the DY onto the cathode ray tube (CRT) funnel and tighten the screws.
5. Also adjust DY positions for red and blue outputs in the same way.

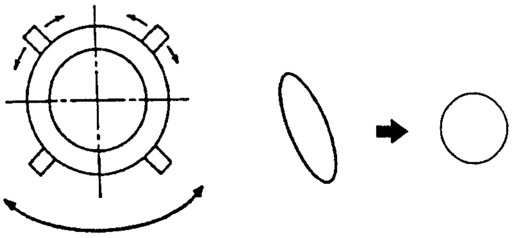
3-3. 2-POLE MAGNET ADJUSTMENT

1. Input dot signal.
2. Enter service mode. Select R OFF of SERVICE MODE to cut off red output.
   Similarly, select B OFF to cut off blue output.
3. Set PICTURE to maximum. Turn the green focus variable resistor (VR) in the focus block counterclockwise to brighten the point in the dot.
4. Adjust the 2-pole magnet to position the bright point at the center of the dot.
5. Adjust the red and blue dots in the same way.



3-4. 4-POLE MAGNET ADJUSTMENT

1. Input dot signal.
2. Enter service mode. Select R OFF of SERVICE MODE to cut off red output.
   Similarly, select B OFF to cut off blue output.
3. Set PICTURE to maximum. Turn the green focus variable resistor (VR) in the focus block clockwise until the dot diameter becomes 15 mm to 20 mm.
4. Adjust the 4-pole magnet to make the dot perfectly round.
5. Adjust the red and blue dot in the same way.



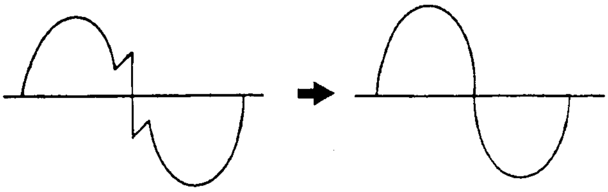
3-5. Ds ADJUSTMENT

1) HORIZONTAL WAVE ADJ.

1. Input a PAL color bar signal.
2. Connect the oscilloscope to pin① of IC1712 on Ds board.
3. Adjust RV984 (horizontal wave) of the waveform.

2) VERTICAL WAVE ADJ.

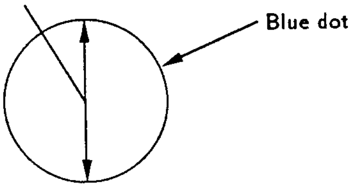
1. Input a PAL color bar signal.
2. Connect the oscilloscope to pin⑦ of IC1712 on Ds board.
3. Adjust RV983 (vertical wave) of the waveform.



3-6. DE-FOCUS ADJUSTMENT (BLUE)

1. Input dot signal.
2. Turn the blue focus variable resistor (VR) in the focus block counter clock wise so that the diameter of the blue dot becomes 10±1mm.

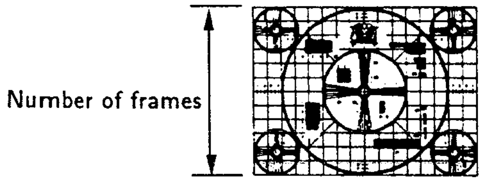
46" : MAX 10mm
53" : MAX 11mm



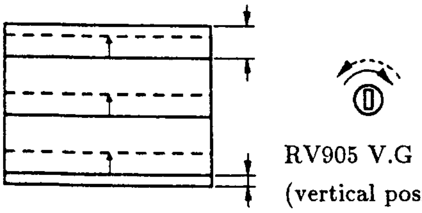
*Adjust as confirm that the blue dot of TEXT picture.

3-7. GREEN PICTURE ADJUSTMENTS

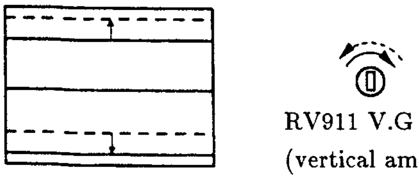
1. Input monoscope signal.
2. Enter service mode. Select R OFF of SERVICE MODE to cut off red output.
   Similarly, select B OFF to cut off blue output.
3. Turn RV913 and RV960, the vertical green linearity variable resistors (V.G LIN VRs) on the D-board, to obtain an optimum vertical linearity. Then turn RV911, the vertical green amplitube variable resistor (V.G SIZE VR) to set vertical amplitude to 11.2±0.2 flames.
   Note: The vertical position indicator of the monoscope signal must be positioned at the center by adjusting RV905, the vertical green center position variable resistor (V.G CENT VR) in advance.



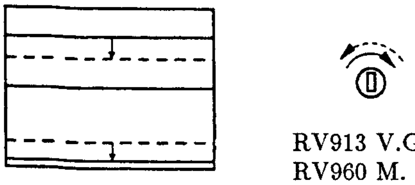
Monoscope signal



RV905 V.G CENT
(vertical position)

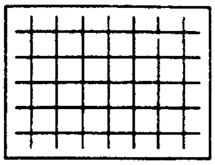


RV911 V.G SIZE
(vertical amplitude)

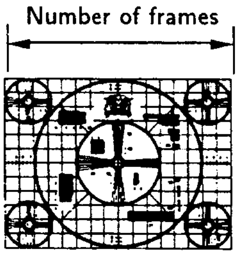


RV913 V.G LIN
RV960 M. LIN. S

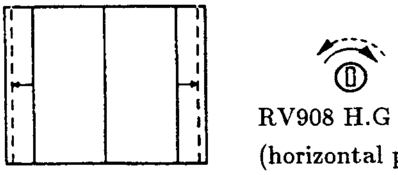
4. Verify that the horizontal lines on the top and bottom of cross-hatched area of the monoscope signal are horizontal and linear.



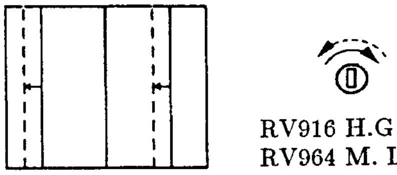
5. Turn RV916, RV964 and RV969, the horizontal green linearity variable resistors (H.G LIN VRs) on the D-board, to obtain an optimum horizontal linearity.
   Then turn RV908, the horizontal green amplitude variable resistor (H.G SIZE VR) to set horizontal amplitude to 14.8±0.2 frames.
   Note: The horizontal position indicator of the monoscope signal must be positioned at the center by adjusting RV902, the horizontal green center position variable resistor (V.G CENT VR) in advance.



Monoscope signal



RV908 H.G SIZE
(horizontal position)



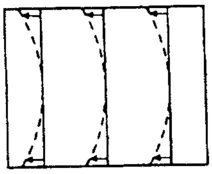
RV916 H.G LIN
RV964 M. LIN. S
RV969 M. LIN. L
(horizontal linearity)

6. Input cross hatch signal.
   Turn vertical green (V.G) and horizontal green (H.G) variable resistors (VRs) and make adjustments according to the following steps.

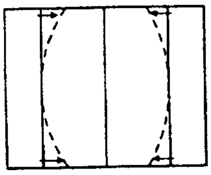
(Adjustment procedure)

1. [BOW] → [SKEW] → [CENT (center position)]
2. [PIN (pin warp)] → [SUB BOW] → [BOW]
3. [KEYS (trapezoid)] → [SUB SKEW] → [SKEW]
4. [M.WAVE (middle sine wave warp)] →
   [WAVE-A (upper and lower sine wave warp)] →
   [WAVE-U (upper sine wave warp)]
   ※ For vertical (V) only.
5. [V-M.PIN (vertical middle pin warp)] →
   [V/WING (vertical wing warp)]
   ※ For vertical (V) only.
6. [H-M.PIN (horizontal middle pin warp)]
   ※ For horizontal (H) only.

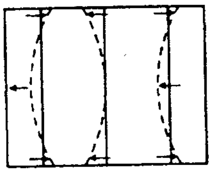
(Dot motion)



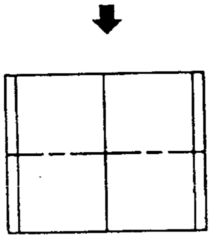
RV932 H.G BOW
(horizontal green bow)



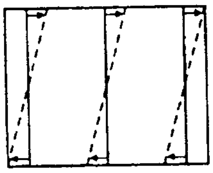
RV941 H.G PIN
(horizontal green pin warp)



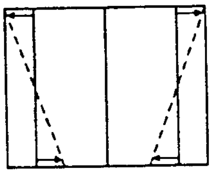
RV950 H.G SUB BOW
(horizontal green sub bow)



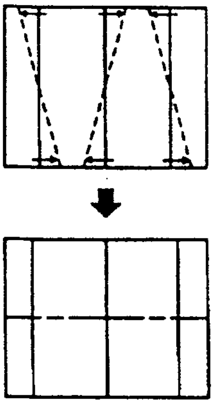
V.G BOW	....	RV935
V.G PIN	....	RV938
V.G SUB BOW	....	RV953



RV920 H.G SKEW
(horizontal green skew)

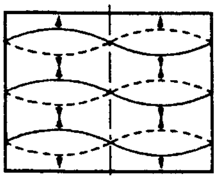


RV925 H.G KEYS
(horizontal green trapezoid)

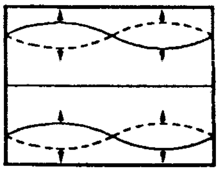


RV944 H.G SUB SKEW
(horizontal green sub skew)

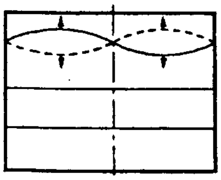
V.G SKEW	....	RV923
V.G KEYS	....	RV929
V.G SUB SKEW	....	RV947



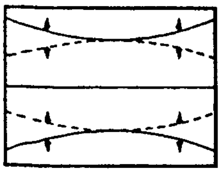
RV962 V-M-WAVE
(vertical middle sine wave warp)



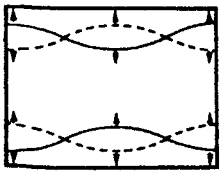
RV975 V-WAVE-A
(vertical upper and lower sine wave warp)



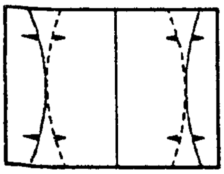
RV978 V-WAVE-U
(vertical upper sine wave warp)



RV980 V-M. PIN
(vertical middle pin warp)
※ Common in red, green, and blue



RV957 V/WING
(wing warp)
※ Common in red, green, and blue



RV956 H/M. PIN
(vertical middle pin warp)

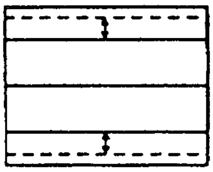
3-8. GREEN AND RED REGISTRATION ADJUSTMENTS

1. Input cross hatch signal.
2. Enter service mode. Select B OFF of SERVICE MODE to cut off blue output.
3. Turn the vertical red (V.R) and horizontal red (H. R) variable resistors (VRs) to adjust red picture convergence in relation to green picture according to the following steps:

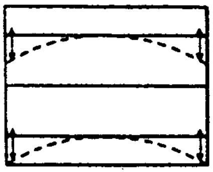
(Adjustment procedure)

1. [LIN (linearity)] → [SIZE (amplitude)] → [CENT (center position)] →
2. [BOW] → [SKEW] → [CENT (center position)]
3. [PIN (pin warp)] → [SUB BOW] → [BOW] [H/M. PIN (horizontal middle pin warp)]
4. [KEYS (trapezoid)] → [SUB SKEW] → [SKEW]
5. [M.WAVE (middle sine wave warp)] → [WAVE-A (upper and lower sine wave warp)] → [WAVE-U (upper sine wave warp)]
   ※ For vertical (V) only.

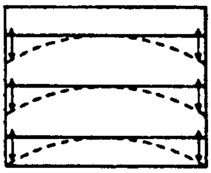
(Dot motion)



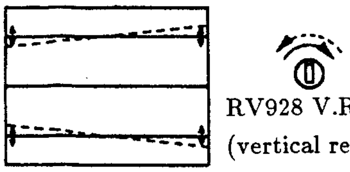
RV912 V.B SIZE
(vertical red amplitude)



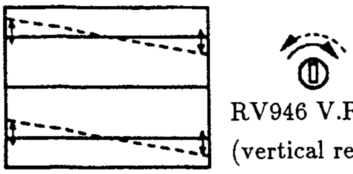
RV952 V.R SUB BOW
(vertical red sub bow)



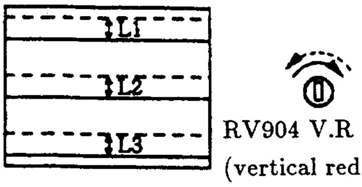
RV943 V.R BOW
(vertical red bow)



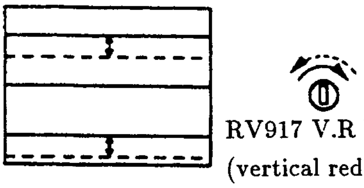
RV928 V.R KEYS
(vertical red trapezoid)



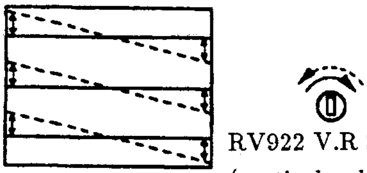
RV946 V.R SUB SKEW
(vertical red sub skew)



RV904 V.R CENT
(vertical red center position)



RV917 V.R LIN
(vertical red linearity)



RV922 V.R SKEW
(vertical red skew)

H.R LIN	RV915
H.R SIZE	RV907
H.R CENT	RV901
H.R BOW	RV931
H.R SKEW	RV919
H.R PIN	RV940
H.R KEYS	RV926
H.R SUB BOW	RV949
H.R SUB SKEW	RV943
V-M-WAVE	RV973
V-WAVE-A	RV976
V-WAVE-U	RV979
V-M.PIN	RV980
V/WING	RV957
H/M.PIN	RV956

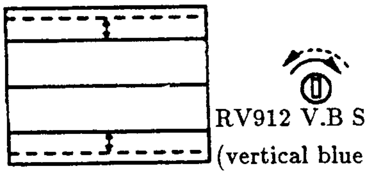
3-9. GREEN AND BLUE REGISTRATION ADJUSTMENTS

1. Input cross hatch signal.
2. Enter service mode. Select R OFF of SERVICE MODE to cut off red output.
3. Turn the vertical blue (V.B) and horizontal blue (H.B) variable resistors (VRs) to adjust blue picture convergence in relation to green picture according to the following steps:

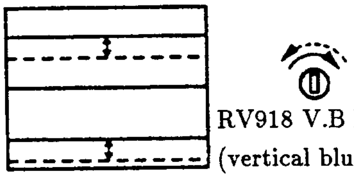
(Adjustment procedure)

1. [LIN (linearity)] → [SIZE (amplitude)] → [CENT (center position)] →
2. [BOW] → [SKEW] → [CENT (center position)]
3. [PIN (pin warp)] → [SUB BOW] → [BOW] [H/M. PIN (horizontal middle pin warp)]
4. [KEYS (trapezoid)] → [SUB SKEW] → [SKEW]
5. [M.WAVE (middle sine wave warp)] → [WAVE-A (upper and lower sine wave warp)] → [WAVE-U (upper sine wave warp)] →

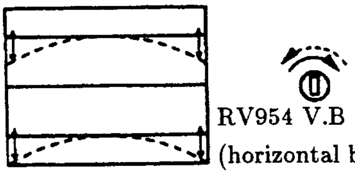
(Dot motion)



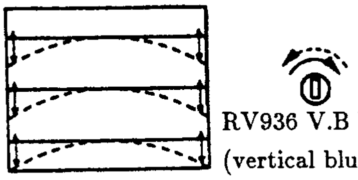
RV912 V.B SIZE
(vertical blue amplitude)



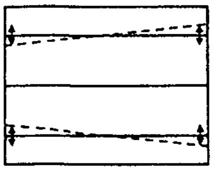
RV918 V.B LIN
(vertical blue linearity)



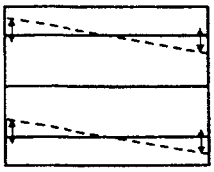
RV954 V.B SUB BOW
(horizontal blue sub bow)



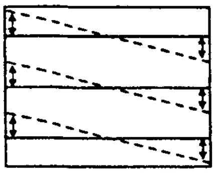
RV936 V.B BOW
(vertical blue bow)



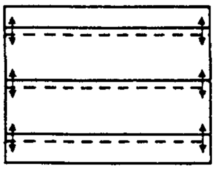
RV930 V.B KEYS
(vertical blue trapezoid)



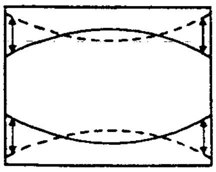
RV948 V.B SUB SKEW
(vertical blue sub skew)



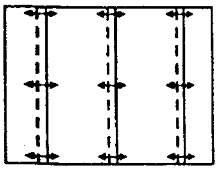
RV924 V.B SKEW
(vertical blue skew)



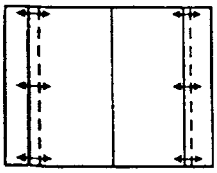
RV906 V.B CENT
(vertical blue center position)



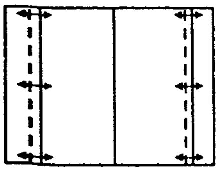
RV939 V.B PIN
(vertical blue pin warp)



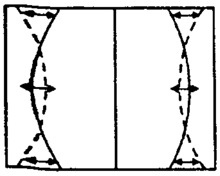
RV903 H.B CENT
(vertical blue center position)



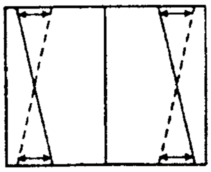
RV909 H.B SIZE
(horizontal blue amplitude)



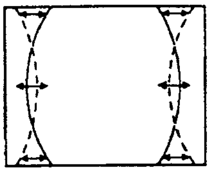
RV914 H.B LIN
(horizontal blue linearity)



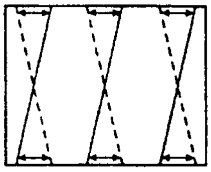
RV942 H.B PIN
(horizontal blue pin warp)



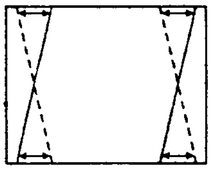
RV945 H.B SUB SKEW
(horizontal blue sub skew)



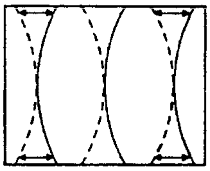
RV951 H.B SUB BOW
(horizontal blue sub bow)



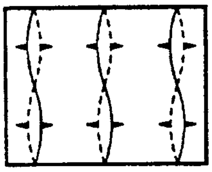
RV921 H.B SKEW
(horizontal blue skew)



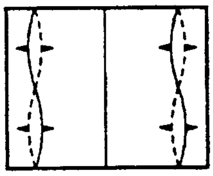
RV927 H.B KEYS
(horizontal blue trapezoid)



RV933 H.B BOW
(horizontal blue bow)



RV981
※ Common in red,
green, and blue



RV982
※ Common in red,
green, and blue

H/M PIN ···············	RV958
M.WAVE ···············	RV961
WAVE-A ···············	RV974
WAVE-U ···············	RV977

SECTION 4
CIRCUIT ADJUSTMENTS

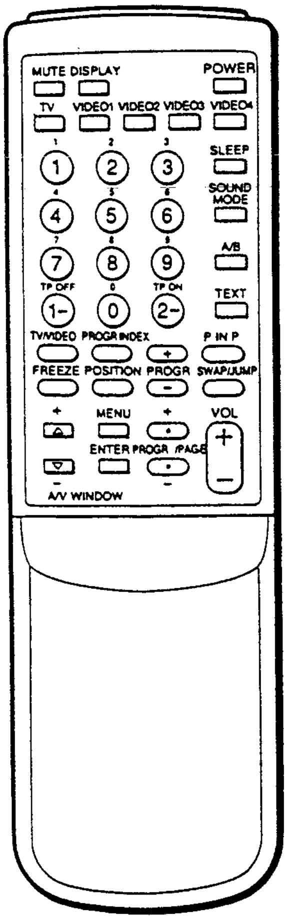
4-1. ADJUSTMENTS WITH COMMANDER

Service adjustments are made with the RM-821 that comes with this unit.

Entering service mode

With the unit on standby
⇩
"DISPLAY"
⇩
"5"
⇩
"VOL (+)"
⇩
"POWER"

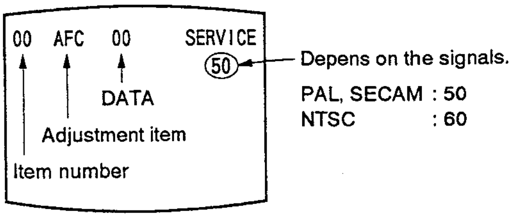
This operation sequence puts the unit into service mode.


MUTE
DISPLAY
POWER
TV
VIDEO1
VIDEO2
VIDEO3
VIDEO4
1
2
3
SLEEP
4
5
6
SOUND MODE
7
8
9
A/B
TP OFF
0
TP ON
TEXT
1-
2-
TV/VIDEO
PROGR INDEX
P IN P
FREEZE
POSITION
PROGR
SWAP/JUMP
MENU
VOL
+
-
ENTER
PROGR /PAGE
A/V WINDOW

"1", "4"	Raise/lower the service item number
"3", "6"	Raise/lower the data
"MUTE"	Writes
"0"	Executes the writing

"7", "0"	The data all becomes the values in memory
"8", "0"	User control all goes to the standard state
"9"	H-FRE automatic adjustment
"5", "0"	Service data initialization (Besure not to use usually.)
"2", "0"	Write 50 Hz adjustment data to 60 Hz, or in opposition.

The screen display is:


00 AFC 00 SERVICE
50
DATA
Adjustment item
Item number
Depens on the signals.
PAL, SECAM : 50
NTSC : 60

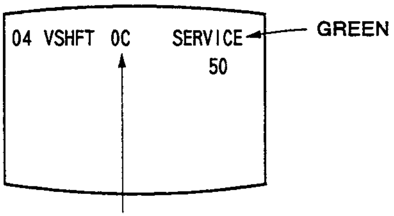
"1", "4" Select the adjustment item.
⬇
"3", "6" Raise/lower the data.
⬇
"MUTE" Writes.
⬇
"0" Executes the writing.

4-2. ADJUSTMENT METHOD

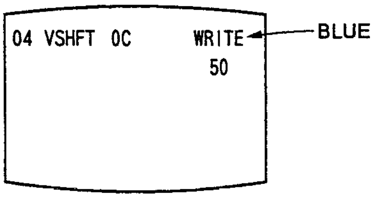
Item Number 04

This explanation uses VSHFT as an example.

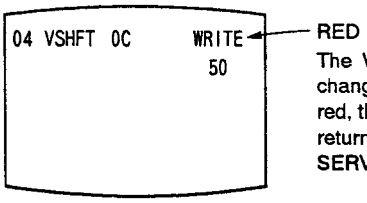
1. Select 04 VSHFT with the "1" and "4" buttons.
2. Raise/lower the data with the "3" and "6" buttons.
3. Select the optimum state. (The standard is for 0F PAL reception.)
4. Write with the MUTE button. (The display changes to blue WRITE.)
5. Execute the writing with the "0" button. (The WRITE display changes briefly to red.)



Adjusted with "3" and "6" buttons



Written with "MUTE"



The WRITE display changes briefly to red, then the display returns to a green SERVICE.

Write excuted with "0"

Use the same method for Items Number 00 – 50. Use "1" and "4" to select the adjustment item, use "3" and "6" to adjust, write with "MUTE", then execute the write with "0".

Note: In "WRITE", the data of all items are wrote together to memory.

- H-FRE can be adjusted automatically. Feed a standard signal and input "9", the automatic adjustment is executed.
- As for VFREQ, by searching the bolded screen V range with adjusting data.

Note: In item 02 50 Hz, or item 03 60 Hz, it operates normally in spite of the 50 Hz or the 60 Hz of the input signal. Therefore be suure to adjust data according to the input signal.

AN ITEM OF ADJUSTMENT

LABSEL	ITEM	DATA SPHERE	STANDARD *		NAME REGIST
			50 Hz	60 Hz	
0	AFC	00~03	00	00	AFC SW
1	HFRE	00~7 F	45	40	H FREQUENCY
2	VFR 5	00~1 F	0F		V FREQUENCY 50
3	VFR 6	00~1 F	0F		V FREQUENCY 60
4	VSFT	00~1 F	0C	0C	V SHIFT
5	VSIZ	00~3 F	26	27	V SIZE
6	VLIN	00~0 F	07	07	V LINEARITY
7	VSCO	00~0 F	07	07	V S CORRECT
8	HPHA	00~0 F	03	05	H SENT
17	VSM 5	00~01	00		V LOCK RANGE SW 50
18	VSM 6	00~01	00		V LOCK RANGE SW 60
28	SPIC	00~1 F	0 D		SUB PICTURE
29	SHUE	00~1 F	0 D		SUB HUE
30	SCOL	00~1 F	0 D		SUB COLOR
31	SBRT	00~1 F	0 D		SUB BRIGHTNESS
32	SSHP	00~1 F	0 D		SUB SHARPNESS
33	SBAL	00~1 F	0 D		SUB BALANCE
34	VM	00~02	00		VM ON/OFF/NR SYNC.
35	MDSH	00~3 F	35		MAIN SCREEN DISPLAY POSITION H DIRECTION
36	SDSH	00~3 F	0 E		PiP SCREEN DISPLAY POSITION H DIRECTION
37	PIPH	00~3 F	20	20	PinP H CENT POSITION
38	PIPV	00~0 F	08	08	PinP V CENT POSITION
39	PIPL	00~0 F	08		PinP OUT LEVEL
40	PIPC	00~07	04		PinP FRAME COLOR
41	PIPD	00~07	00	00	PinP DELAY
42	PIVS	00~07	04	04	PinP V CORRECT
43	PIHS	00~0 F	07	04	PinP H CORRECT
44	TXPC	00~0 F	05		TEXT PICTURE
45	BLUE	00~02	00		NO SIGNAL BLUE BACK Yes/No
46	OSD	00~01	00		SCREEN DISPLAY START POSITION
47	MDSV	00~1 F	0 F		MAIN SCREEN DISPLAY POSITION V DIRECTION
48	DEGA	00~01	※		DEGAUSS ON/OFF
49	ONDL	00~FF	80		POWER ON DELAY TIME
50	MUTE	00~01	01		NO SIGNAL SOUND MUTE Yes/No
51	GAMP	00~1 F	0 F		G DRIVE
52	BAMP	00~1 F	0 F		B DRIVE
53	GCUT	00~0 F	07		G CUT OFF
54	BCUT	00~0 F	07		B CUT OFF
55	SBR 2	00~1 F	0 D		SUB BRIGHTNESS
56	IK	00~03	01		IK REF PULSE
57	R-ON	00~01	01		R ON
58	G-ON	00~01	01		G ON
59	B-ON	00~01	01		B ON
60	ABLM	00~01	00		ABL MODE

* 50 : PAL input signal standard

* 60 : NTSC input signal standard

Notes :
08 H-PHA is adjusted with data 00-07.
34 VM does not function.
46 OSD is set to 0.
48 DEGA is set to 1.
49 OND is set to 80.
39 PIPL is set to 01 for M37204M8-A10SP (M M't IC 005)
08 for M37204M8-xxx
50 MUTE can not be selected for M37204M8-A10SP
32 SSHP is set to 03 for M37204M8-A10SP
0D for M37204M8-xxx

4-3. PICTURE QUALITY ADJUSTMENTS

Item Numbers 28 – 33

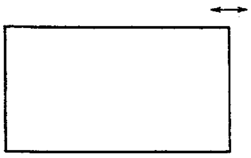
SPIC
SHUE
SCOL
SBRT
} When it is out of order in the user 50% condition, be sure to adjust.

SSHP
SBAL
} Set to the standard values.

4-4. DISPLAY POSITION ADJUSTMENT

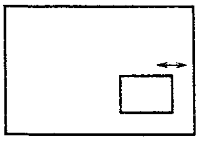
Item Numbers 35 – 43

35 MDSH Main screen display position, horizontal



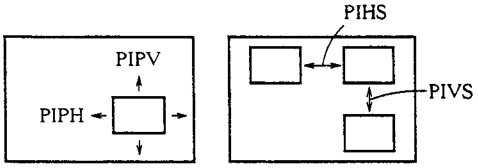
Stretches/contracts the right side of the screen.

36 SDSH PinP screen display position



Stretches/contracts the right side of the child screen.

37	PIPH	Pin-P horizontal position correction
38	PIPV	Pin-P vertical position correction
42	PIVS	Pin-P vertical correction
43	PIHS	Pin-P horizontal correction

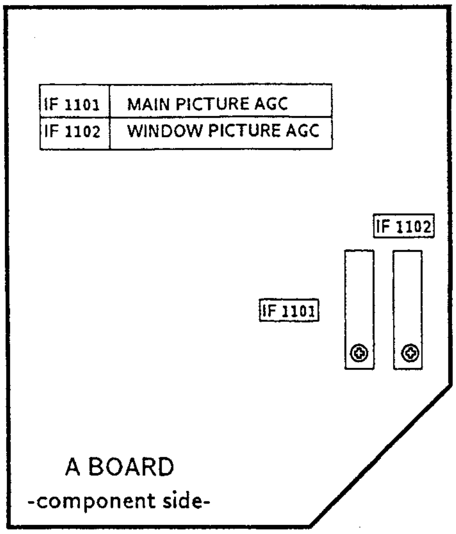


- When pressing PIP "POSITION" key in the servicce mode, "POSITION" turns round and round automatically.

Item Numbers 39 – 41 and 47 are set to the standard values.

44 TXPIC Text picture
Corrects the brightness for when teletext is received.
Standard value is 05.

4-5. A BOARD ADJUSTMENTS


IF 1101 MAIN PICTURE AGC
IF 1102 WINDOW PICTURE AGC
IF 1102
IF 1101
A BOARD
-component side-

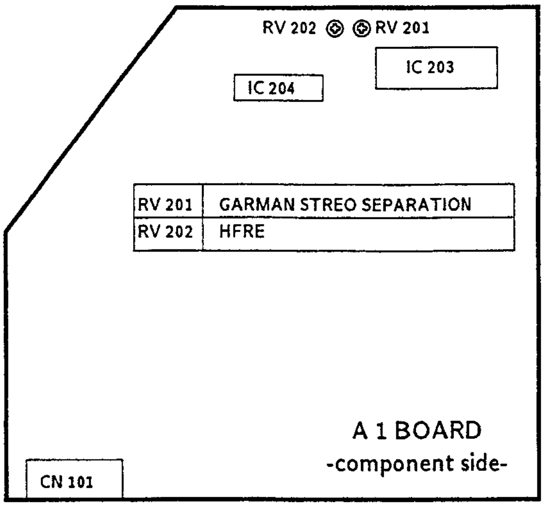
Main screen AGC adjustment (IF1101)

1. Receive an off-air signal.
2. Adjust the IF1101 RF AGC VR so that there is no snow noise or cross-modulation.
3. Switch the channel and verify the adjustment.

PinP screen AGC adjustment (IF1102)

1. Receive an off-air signal.
2. Adjust the IF1102 RF AGC VR so that there is no snow noise or cross-modulation.
3. Switch the channel and verify the adjustment.

4-6. A1 BOARD ADJUSTMENTS


RV 202
RV 201
IC 203
IC 204
RV 201 GARMAN STREO SEPARATION
RV 202 HFRE
A 1 BOARD
-component side-
CN 101

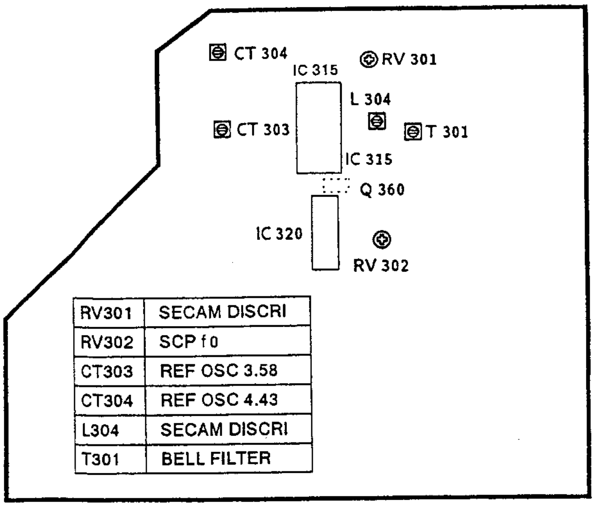
German stereo separation adjustment (RV201)

1. Input a 400 Hz signal to the left and a 1 kHz signal to the right.
2. Connect an oscilloscope to Pins ⑧ and ⑨ of CN101.
3. Adjust RV201 so that a 400Hz sine wave is output from Pin ⑧ and a 1 kHz sin wave is output from Pin ⑨.

Horizontal frequency adjustment (RV202)

1. Connect Pin ⑫ of IC204 to ground.
2. Receive a PAL color bar signal.
3. Connect a frequency counter to Pin ⑬ of IC203.
4. Adjust RV202 for a frequency of 15625 ± 50 Hz.
5. Remove the ground from Pin ⑫ of IC204.

4-7. B BOARD ADJUSTMENTS

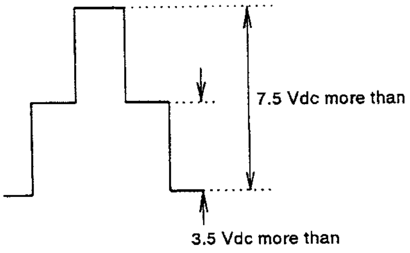

CT 304
IC 315
RV 301
L 304
CT 303
T 301
IC 315
Q 360
IC 320
RV 302

RV301	SECAM DISCRI
RV302	SCP f0
CT303	REF OSC 3.58
CT304	REF OSC 4.43
L304	SECAM DISCRI
T301	BELL FILTER

B BOARD (MAIN PICTURE)
-component side-

SCP f0 adjustment (RV302)

1. Connect Pin ⑫ of IC320 to ground.
2. Connect a frequency counter to Pin ④ of IC320.
3. Adjust RV302 for a frequency of 15.625 kHz.
4. Check that the SCP pulse is output at Pin ⑥ of IC320.


7.5 Vdc more than
3.5 Vdc more than

5. Remove the ground from Pin ⑫ of IC320.

Reference oscillation adjustment (CT304)

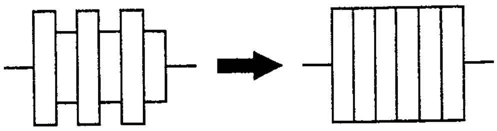
1. Connect Pin ⑰ of IC315 to ground.
2. Input a PAL color bar signal.
3. Adjust CT304 to the point where the screen moves the slowest.
4. Remove the ground from Pin ⑰ of IC315.

Reference oscillation adjustment (CT303)

1. Connect Pin ⑰ of IC315 to ground.
2. Input a 3.58 NTSC color bar signal.
3. Adjust CT303 to the point where the screen moves the slowest.
4. Remove the ground from Pin ⑰ of IC315.

Bell filter adjustment (T301)

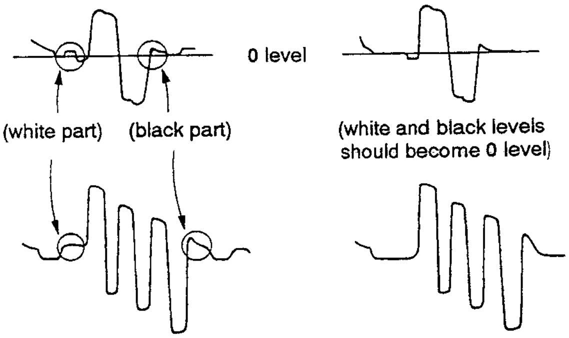
1. Input a SECAM color bar signal.
2. Connect an oscilloscope to the emitter of Q360.
3. Adjust T301 so that the waveform is flat.



(Before Adjustment) (After Adjustment)

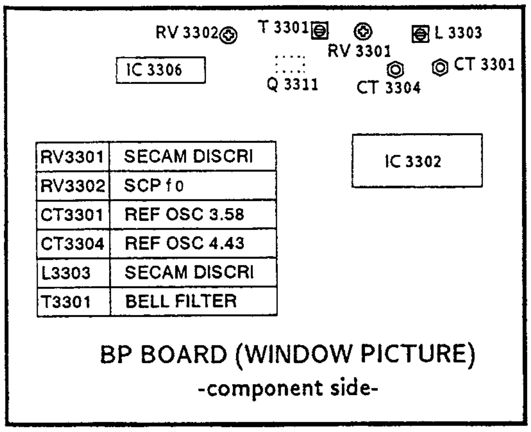
SECAM DISCRI adjustment (RV301, L304)

1. Input a SECAM color bar signal.
2. Connect an oscilloscope to Pin ① of IC315.
3. Adjust RV301 so that the sections corresponding to white and black are at 0 level.
4. Connect the oscilloscope to Pin ③ of IC315.
5. Adjust L304 so that the sections corresponding to white and black are at 0 level.
6. Carry out the 2 – 5 tracking.


0 level
(white part)
(black part)
(white and black levels should become 0 level)

(Before Adjustment) (After Adjustment)

4-8. BP BOARD ADJUSTMENTS (PinP screen)

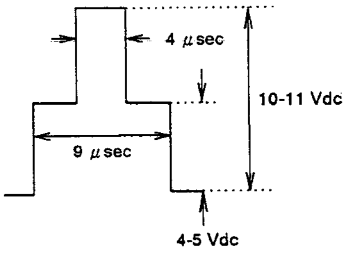

RV 3302
T 3301
L 3303
IC 3306
RV 3301
CT 3301
Q 3311
CT 3304
IC 3302

RV3301	SECAM DISCRI
RV3302	SCP f o
CT3301	REF OSC 3.58
CT3304	REF OSC 4.43
L3303	SECAM DISCRI
T3301	BELL FILTER

BP BOARD (WINDOW PICTURE)
-component side-

SCP fo adjustment (RV3302)

1. Connect Pin⑫ of IC3306 to ground.
2. Connect a frequency counter to Pin④ of IC3306.
3. Adjust RV3302 for 15.625 kHz.
4. Check that the SCP pulse is output at Pin⑥ of IC3306.


4 μsec
10-11 Vdc
9 μsec
4-5 Vdc

5. Remove the ground from Pin⑫ of IC3306.

Reference oscillation adjustment (CT3304)

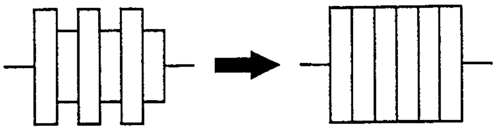
1. Connect Pin⑰ of IC3302 to ground.
2. Input a PAL color bar signal to the PinP screen.
3. Adjust CT3304 to the point where the screen moves the slowest.
4. Remove the ground from Pin⑰ of IC3302.

Reference oscillation adjustment (CT3301)

1. Connect Pin⑰ of IC3302 to ground.
2. Input a 3.58 NTSC color bar signal.
3. Adjust CT3301 to the point where the screen moves the slowest.
4. Remove the ground from Pin⑰ of IC3302.

Bell filter adjustment (T3301)

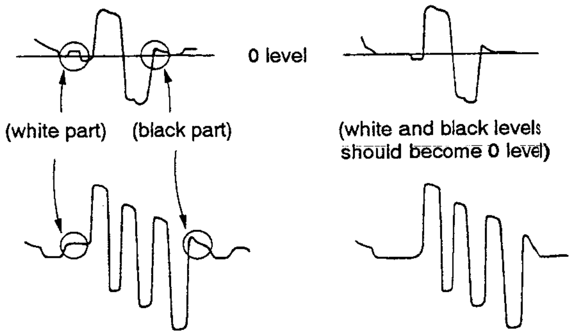
1. Input a SECAM color bar signal.
2. Connect an oscilloscope to the emitter of Q3311.
3. Adjust T3301 so that the waveform is flat.



(Before Adjustment) (After Adjustment)

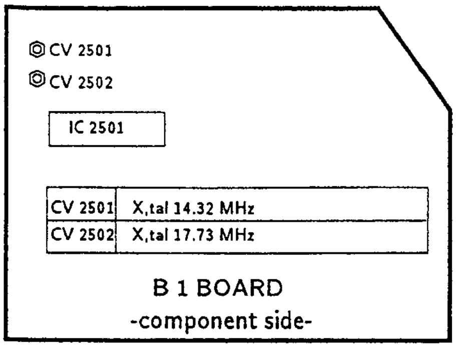
SECAM DISCRI adjustment (RV3301, L3303)

1. Input a SECAM color bar signal.
2. Connect an oscilloscope to Pin① of IC3302.
3. Adjust RV3301 so that the sections corresponding to white and black are at 0 level.
4. Connect the oscilloscope to Pin③ of IC3302.
5. Adjust L3303 so that the sections corresponding to white and black are at 0 level.
6. Carry out the 2 – 5 tracking.


0 level
(white part)
(black part)
(white and black levels should become 0 level)

(Before Adjustment) (After Adjustment)

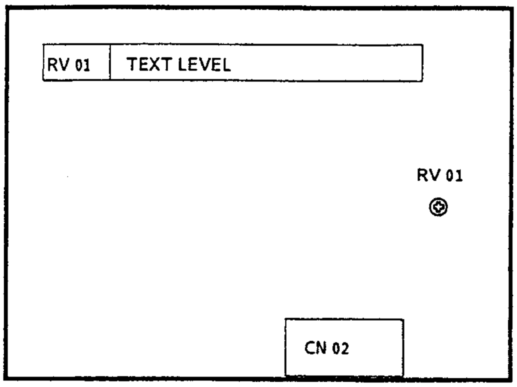
4-9. B1 BOARD ADJUSTMENT


CV 2501
CV 2502
IC 2501
CV 2501 X,tal 14.32 MHz
CV 2502 X,tal 17.73 MHz
B 1 BOARD
-component side-

Crystal adjustment (CV2502)

1. Put the unit into the no-signal state.
2. Select PAL with COLOR SYSTEM.
3. Connect a frequency counter to Pin ⑰ of IC2501.
4. Adjust CV2502 for a frequency of 17.73447 MHz ± 100 Hz.
5. Select NTSC with COLOR SYSTEM.
6. Adjust CV2501 for a frequency of 14.31818 MHz ± 100 Hz.

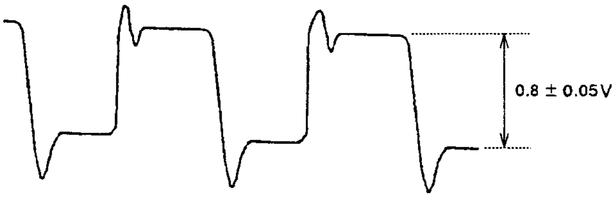
4-10. V BOARD ADJUSTMENT


RV 01 TEXT LEVEL
RV 01
CN 02

V BOARD
-component side-

Text level adjustment (RV01)

1. Receive a teletext signal.
2. Connect an oscilloscope to Pin ④ of CN02.
3. Adjust RV01 for a voltage of 0.5 ± 0.05 V.

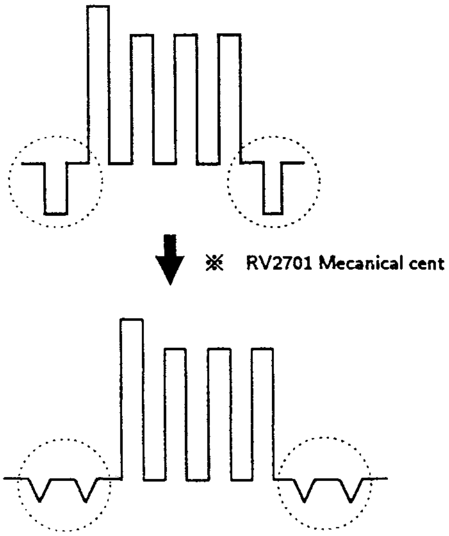


Note: The item 44 TXPIC should be set to 05 value in the service mode.

4-11. A0 BOARD ADJUSTMENT

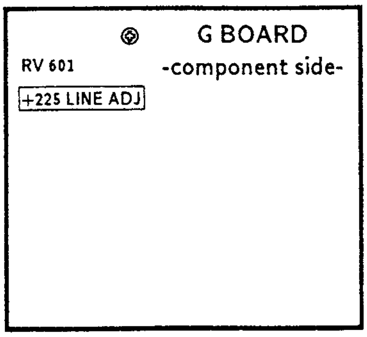
RGB pedestal adjustment (RV2704)

1. Input a PAL color-bar signal.
2. Connect an oscilloscope to B output of TP2701 A0 board.
3. Adjust RV2704 so that the waveform as shown.



4. Connect an oscilloscope to G output of TP2702 A0 board.
5. Adjust RV2702 so that the waveform as shown.
6. Connect an oscilloscope to R output of TP2703 A0 board.
5. Adjust RV2703 so that the waveform as shown.

4-12. G BOARD ADJUSTMENTS

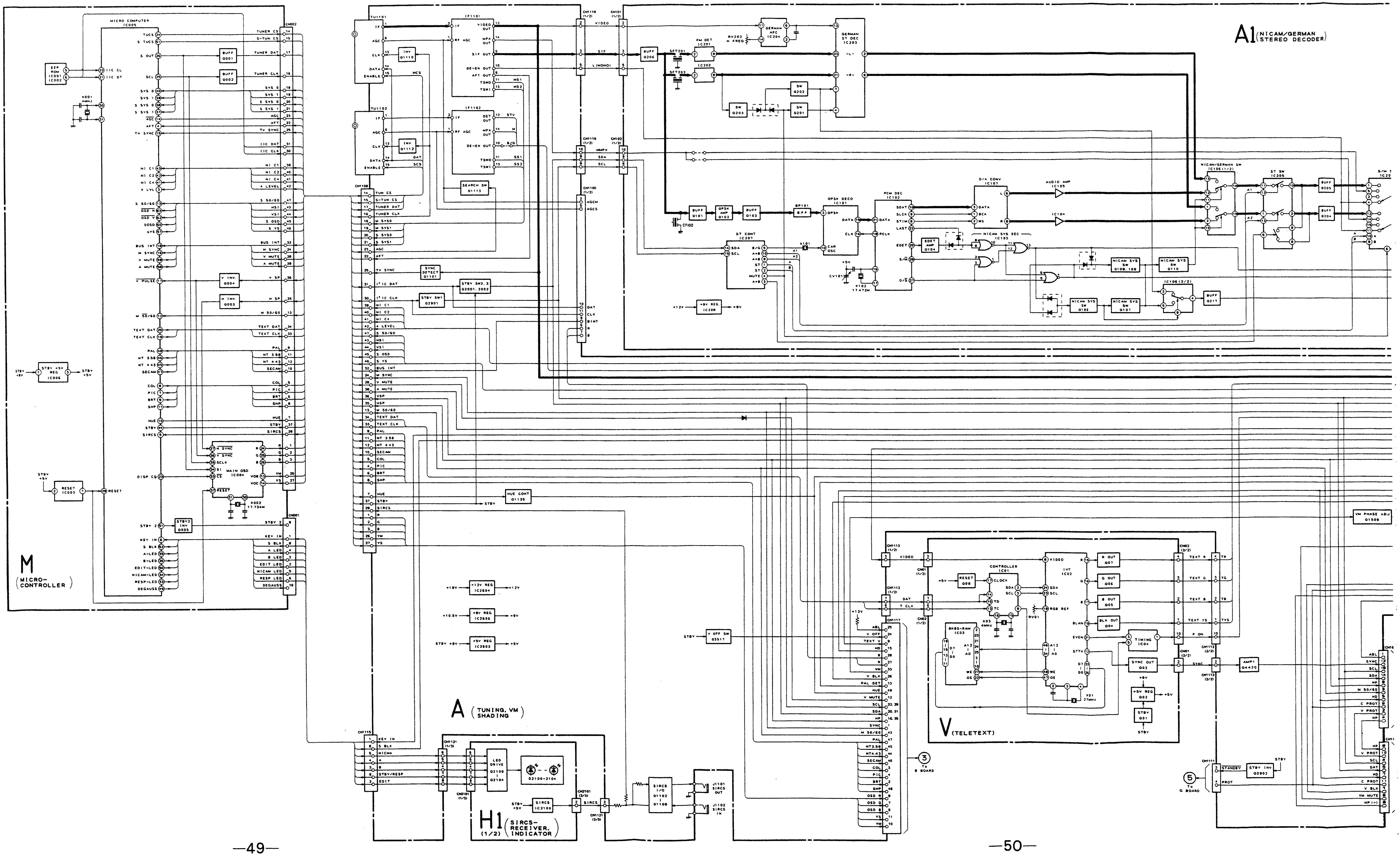


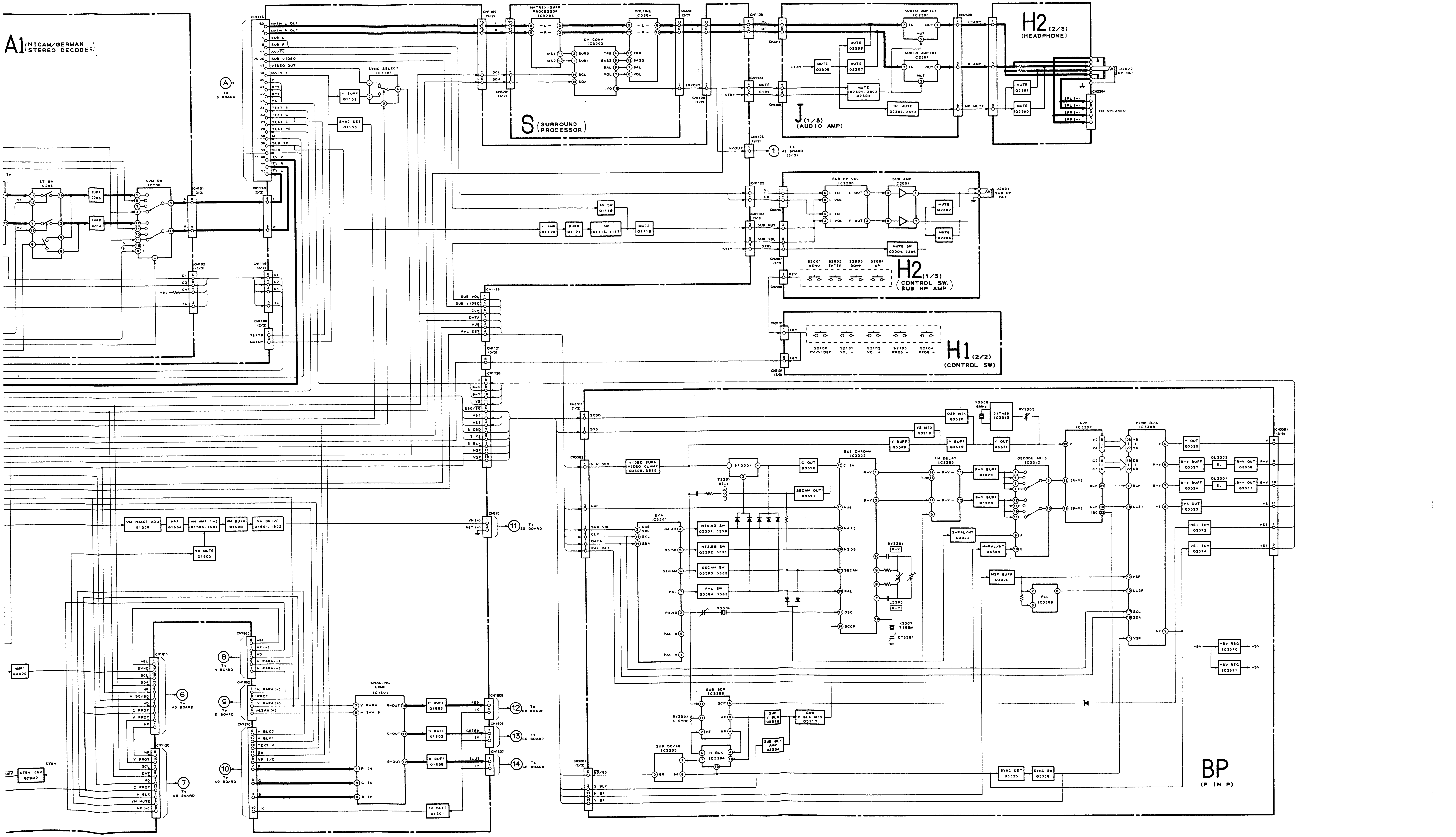
+225 V line adjustment (RV601)

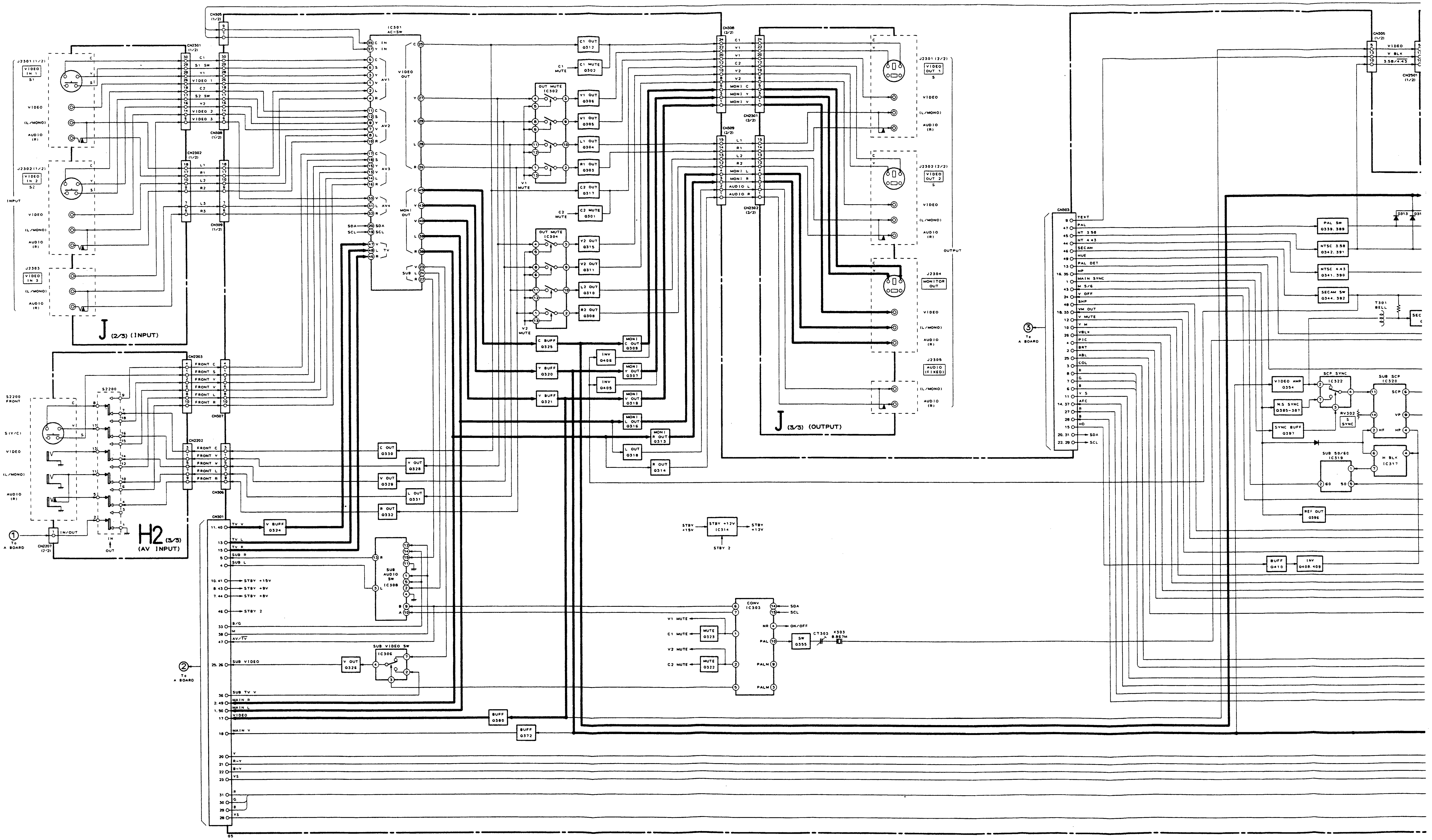
1. Input the color-bar signal.
2. Connect a digital multimeter to emitter of Q604.
3. Adjust RV601 so that voltage is +225 ± 0.5 V.

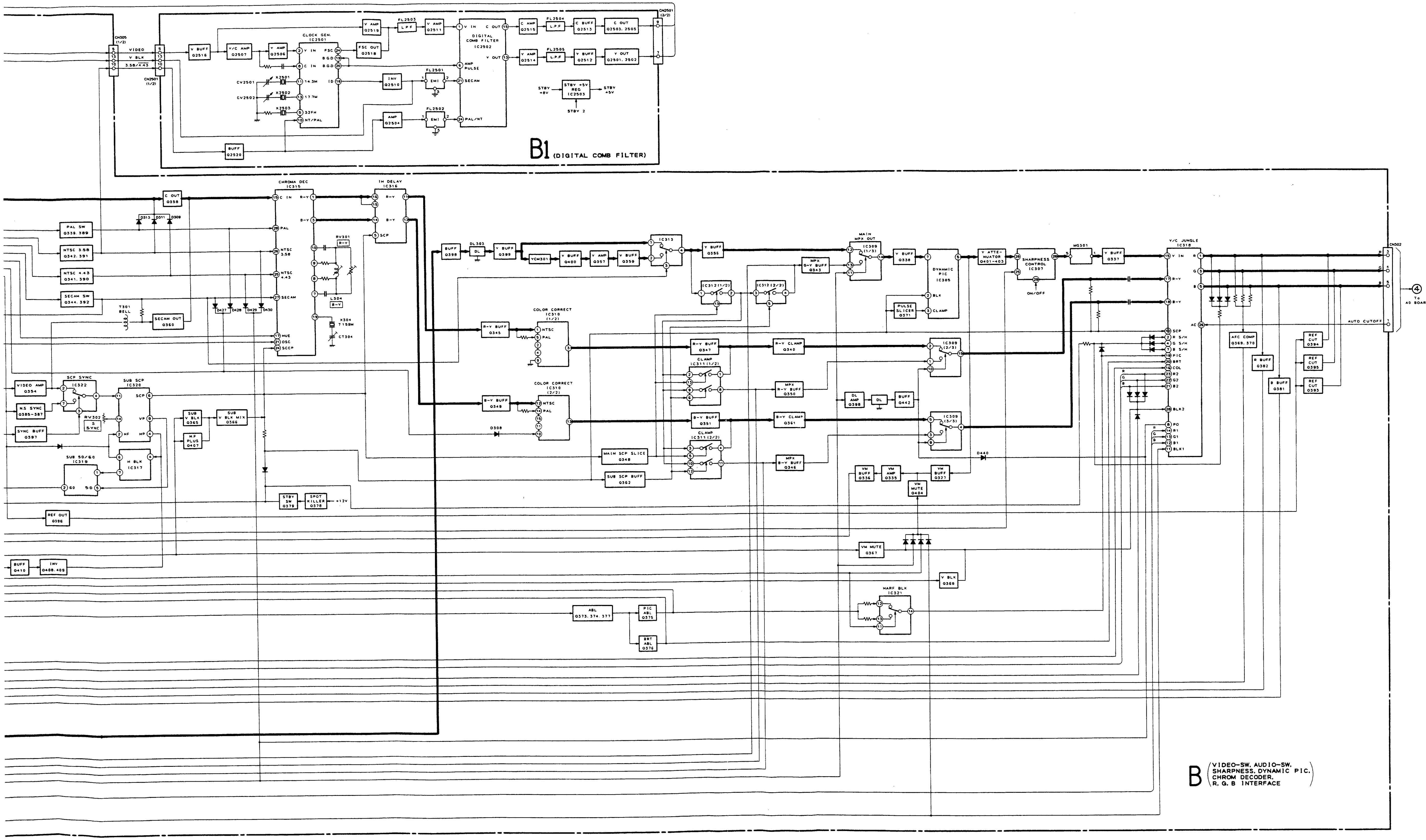
SECTION 5
DIAGRAMS

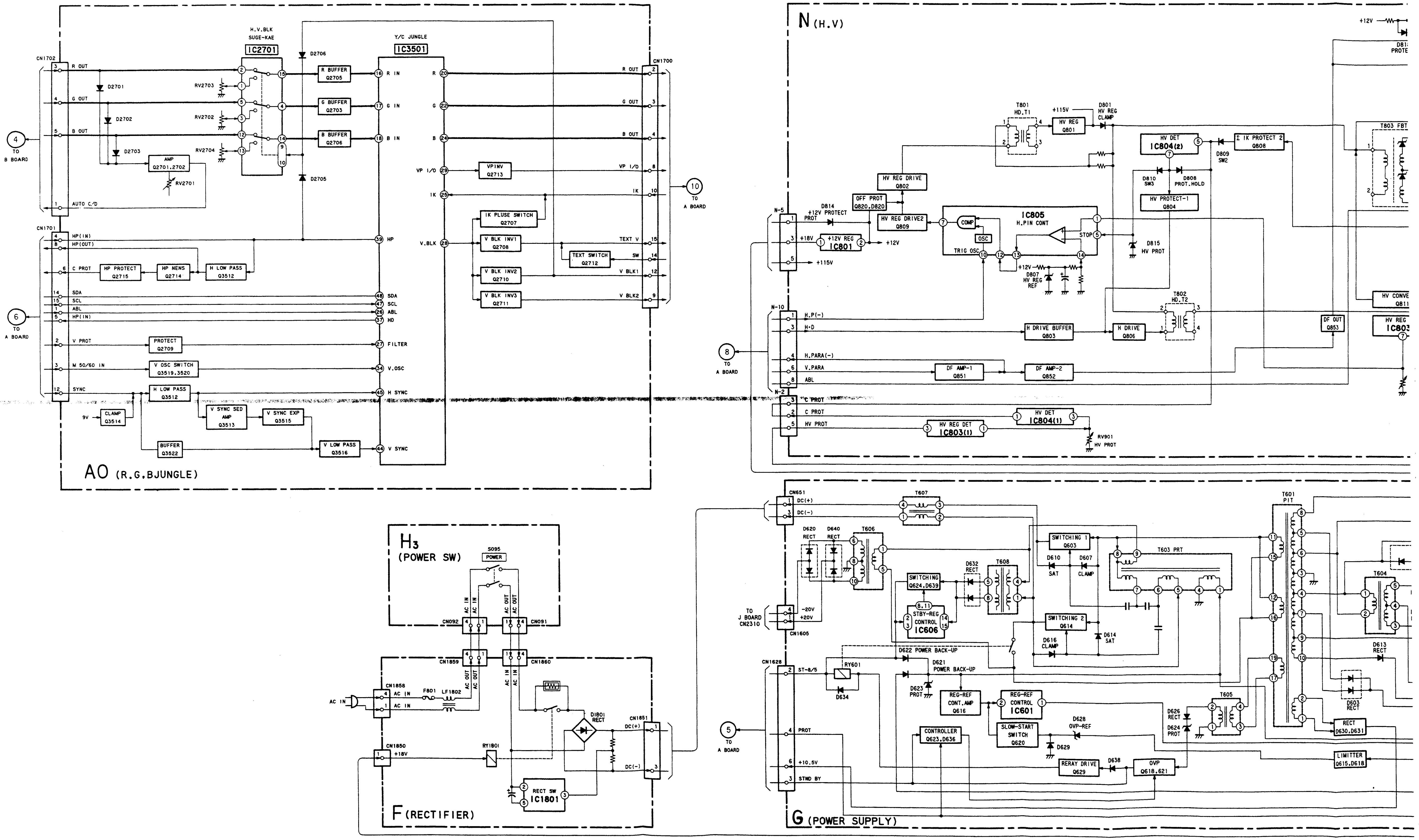
5-1. BLOCK DIAGRAMS

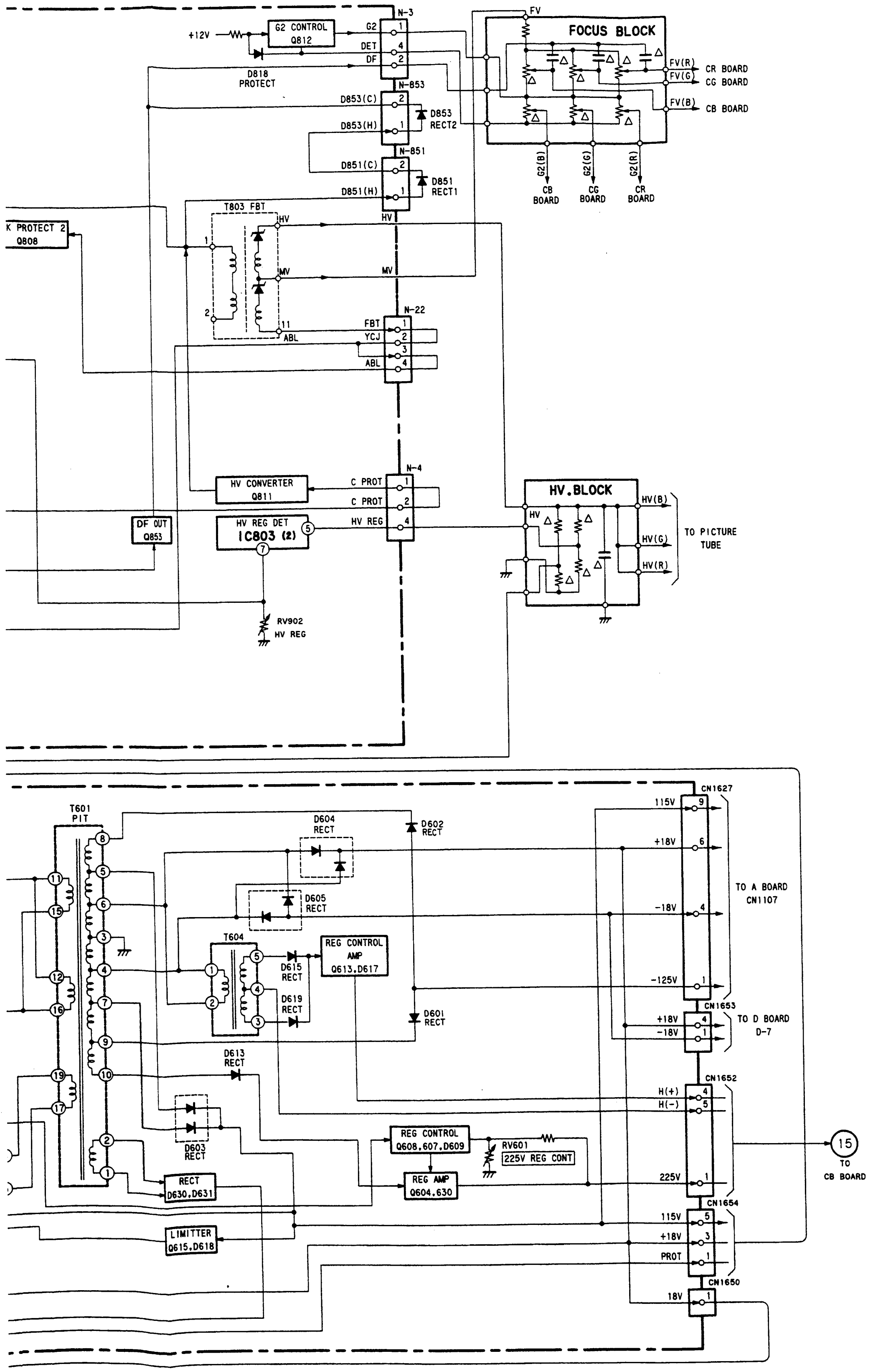

M (MICRO-CONTROLLER)
MICRO COMPUTER IC005
A (TUNING, VM SHADING)
A1 (NICAM/GERMAN STEREO DECODER)
V (TELETEXT)
H1 (1/2) (SIRCS-RECEIVER, INDICATOR)
3 To B BOARD
5 To G BOARD

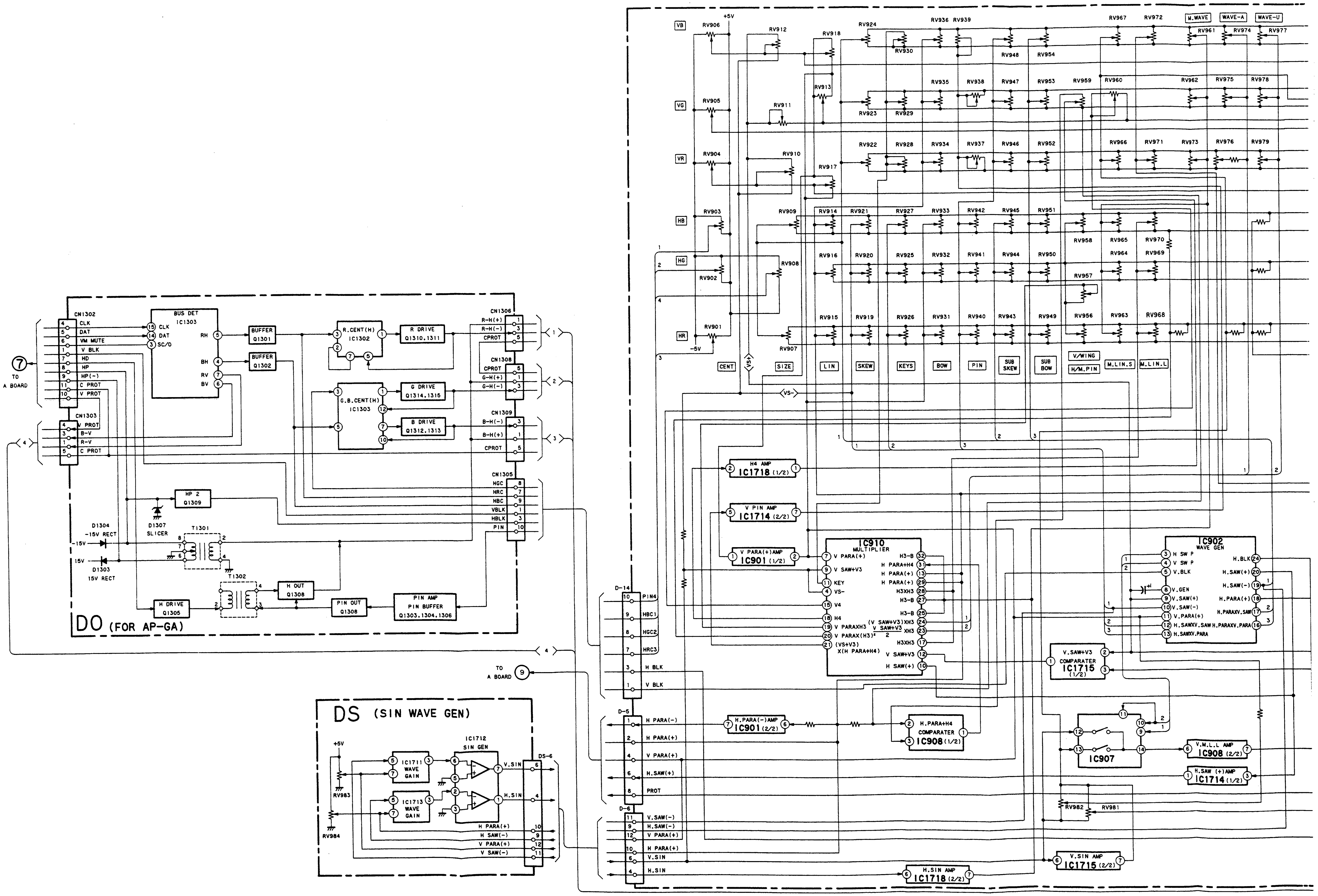

A1 (NICAM/GERMAN STEREO DECODER)
S (SURROUND PROCESSOR)
MATRIX/SURR PROCESSOR IC3203
VOLUME IC3204
DA CONV IC3202
J (1/3) (AUDIO AMP)
AUDIO AMP (L) IC2300
AUDIO AMP (R) IC2301
H2 (2/3) (HEADPHONE)
J2022 HP OUT
TO SPEAKER
H2 (1/3) (CONTROL SW. SUB HP AMP)
SUB HP VOL IC2200
SUB AMP IC2001
J2001 SUB HP OUT
S2001 MENU
S2002 ENTER
S2003 DOWN
S2004 UP
H1 (2/2) (CONTROL SW)
S2100 TV/VIDEO
S2101 VOL -
S2102 VOL +
S2103 PROG -
S2104 PROG +
SYNC SELECT IC1101
ST SW IC205
S/M SW IC206
VM PHASE ADJ Q1509
HPF Q1504
VM AMP 1-3 Q1505-1507
VM BUFF Q1508
VM DRIVE Q1501, 1502
VM MUTE Q1503
SHADING COMP IC1601
R BUFF Q1602
G BUFF Q1603
B BUFF Q1605
IK BUFF Q1801
To ZG BOARD
To CR BOARD
To CG BOARD
To CB BOARD
To AD BOARD
To N BOARD
To D BOARD
To DD BOARD
To B BOARD
To H2 BOARD (3/3)
BP (P IN P)
SUB CHROMA IC3302
A/D IC3307
PINP D/A IC3308
1H DELAY IC3303
DECODE AXIS IC3312
D/A IC3301
SUB SCP IC3306
SUB 50/60 IC3305
PLL IC3309
DITHER IC3313
+5V REG IC3310
+5V REG IC3311


J (2/3) (INPUT)
H2 (3/3) (AV INPUT)
J (3/3) (OUTPUT)
IC301 AC-SW
IC302 OUT MUTE
IC304 OUT MUTE
IC308 SUB AUDIO SW
IC306 SUB VIDEO SW
IC303 CONV
IC314 STBY +12V
IC322 SCP SYNC
IC320 SUB SCP
IC317 H BLK
IC319 SUB 50/60
J2301 (1/2) VIDEO IN 1 S1
J2302 (1/2) VIDEO IN 2 S2
J2303 VIDEO IN 3
J2301 (2/2) VIDEO OUT 1 S
J2302 (2/2) VIDEO OUT 2 S
J2304 MONITOR OUT
J2305 AUDIO (FIXED)
S2200 FRONT
INPUT
OUTPUT
VIDEO
(L/MONO)
AUDIO (R)
S1Y/C1
① To A BOARD
② To A BOARD
③ To A BOARD
CN2207 (2/2)
CN301
CN303
CN305 (1/2)
CN308 (2/2)
CN309 (1/2)
CN306
CN307
CN2301 (1/2)
CN2302 (1/2)
CN2203
CN2202
CN605 (1/2)
CN2501 (1/2)
T301 BELL
RV302
CT303
X303 8.867M
D313


CN305 (1/2)
VIDEO
V BLK
3.58/4.43
CN2501 (1/2)
V BUFF Q2516
Y/C AMP Q2507
Y AMP Q2506
CLOCK GEN. IC2501
V IN
C IN
FSC
B.G.D
ID
14.3M
17.7M
32FH
NT/PAL
CV2501
CV2502
X2501
X2502
X2503
FSC OUT Q2518
V AMP Q2519
FL2503 L.P.F
V AMP Q2511
INV Q2510
FL2501 EMI
AMP Q2504
FL2502 EMI
BUFF Q2520
DIGITAL COMB FILTER IC2502
V IN
C OUT
Y OUT
AMP PULSE
SECAM
PAL/NT
C AMP Q2515
FL2504 L.P.F
C BUFF Q2513
C OUT Q2503, 2505
Y AMP Q2514
FL2505 L.P.F
Y BUFF Q2512
Y OUT Q2501, 2502
STBY +8V
STBY +5V REG IC2503
STBY +5V
STBY 2
CN2501 (2/2)
B1 (DIGITAL COMB FILTER)
C OUT Q358
D313 D311 D309
PAL SW Q338, 389
NTSC 3.58 Q342, 391
NTSC 4.43 Q341, 390
SECAM SW Q344, 392
T301 BELL
SECAM OUT Q360
D427 D428 D429 D430
CHROMA DEC IC315
C IN
R-Y
B-Y
PAL
NTSC 3.58
NTSC 4.43
SECAM
HUE
OSC
SCCP
RV301 R-Y
L304 B-Y
X304 7.159M
CT304
1H DELAY IC316
R-Y
B-Y
SCP
VIDEO AMP Q354
N.S SYNC Q385-387
SYNC BUFF Q397
SCP SYNC IC322
RV302 S SYNC
SUB SCP IC320
SCP
VP
HF
HP
SUB V BLK Q365
SUB V BLK MIX Q366
H.P PLUS Q407
SUB 50/60 IC319
60
50
H BLK IC317
REF OUT Q396
STBY SW Q379
SPOT KILLER Q378
+12V
BUFF Q410
INV Q408, 409
BUFF Q398
DL303 DL
Y BUFF Q399
YCM301
Y BUFF Q400
Y AMP Q357
Y BUFF Q359
IC313
Y BUFF Q356
IC312 (1/2)
IC312 (2/2)
MPX G-Y BUFF Q343
MAIN MPX OUT IC309 (1/3)
Y BUFF Q338
DYNAMIC PIC IC305
BLK
CLAMP
PULSE SLICER Q371
COLOR CORRECT IC310 (1/2)
NTSC
PAL
R-Y BUFF Q345
COLOR CORRECT IC310 (2/2)
B-Y BUFF Q349
D308
R-Y BUFF Q347
CLAMP IC311 (1/2)
R-Y CLAMP Q340
MPX R-Y BUFF Q350
B-Y BUFF Q351
CLAMP IC311 (2/2)
B-Y CLAMP Q361
MPX B-Y BUFF Q346
MAIN SCP SLICE Q348
SUB SCP BUFF Q362
IC309 (2/3)
IC309 (3/3)
DL AMP Q398
DL
BUFF Q442
D440
VM BUFF Q336
VM AMP Q335
VM BUFF Q327
VM MUTE Q404
VM MUTE Q367
V BLK Q368
HARF BLK IC321
ABL Q373, 374, 377
PIC ABL Q375
BRT ABL Q376
Y ATTE-NUATOR Q401-403
SHARPNESS CONTROL IC307
ON/OFF
MG301
Y BUFF Q337
Y/C JUNGLE IC318
Y IN
R-Y
B-Y
SCP
R S/H
G S/H
B S/H
PIC
BRT
COL
R2
G2
B2
BLK2
PO
R1
G1
B1
BLK1
R
G
B
AC
AFC COMP Q369, 370
R BUFF Q382
B BUFF Q381
REF CUT Q394
REF CUT Q395
REF CUT Q393
AUTO CUTOFF
CN302
④ To AD BOARD
B (VIDEO-SW, AUDIO-SW, SHARPNESS, DYNAMIC PIC, CHROM DECODER, R, G, B INTERFACE)


AO (R.G.BJUNGLE)
CN1702
R OUT
G OUT
B OUT
AUTO C/D
D2701
D2702
D2703
RV2703
RV2702
RV2704
AMP Q2701,2702
RV2701
H.V.BLK SUGE-KAE
IC2701
D2706
D2705
R BUFFER Q2705
G BUFFER Q2703
B BUFFER Q2706
Y/C JUNGLE
IC3501
R IN
G IN
B IN
VP I/O
IK
HP
V.BLK
SDA
SCL
ABL
HD
FILTER
V.OSC
H SYNC
V SYNC
VPINV Q2713
IK PLUSE SWITCH Q2707
V BLK INV1 Q2708
V BLK INV2 Q2710
V BLK INV3 Q2711
TEXT SWITCH Q2712
CN1700
R OUT
G OUT
B OUT
VP I/O
IK
TEXT V
SW
V BLK1
V BLK2
TO A BOARD
TO B BOARD
CN1701
HP(IN)
HP(OUT)
C PROT
HP PROTECT Q2715
HP NENS Q2714
H LOW PASS Q3512
SDA
SCL
ABL
HP(IN)
V PROT
PROTECT Q2709
M 50/60 IN
V OSC SWITCH Q3519,3520
SYNC
H LOW PASS Q3512
V SYNC SED AMP Q3513
V SYNC EXP Q3515
9V
CLAMP Q3514
BUFFER Q3522
V LOW PASS Q3516
TO A BOARD
N (H.V)
+12V
D81
PROTE
T801 HD.T1
+115V
HV REG Q801
D801 HV REG CLAMP
HV DET IC804(2)
Σ IK PROTECT 2 Q808
D809 SW2
T803 FBT
D810 SW3
D808 PROT.HOLD
HV PROTECT-1 Q804
HV REG DRIVE Q802
OFF PROT Q820,D820
HV REG DRIVE2 Q809
IC805 H.PIN CONT
COMP
OSC
TRIG OSC
STOP
D815 HV PROT
N-5
D814 +12V PROTECT
PROT
+18V
+12V REG IC801
+12V
+115V
D807 HV REG REF
T802 HD.T2
HV CONVE Q811
HV REG IC803
DF OUT Q853
N-10
H.P(-)
H-D
H DRIVE BUFFER Q803
H DRIVE Q806
H.PARA(-)
V.PARA
ABL
DF AMP-1 Q851
DF AMP-2 Q852
N-2
C PROT
C PROT
HV PROT
HV DET IC804(1)
HV REG DET IC803(1)
RV901 HV PROT
TO A BOARD
H3 (POWER SW)
S095 POWER
AC IN
AC OUT
CN092
CN091
CN1859
CN1860
F (RECTIFIER)
AC IN
CN1858
F801
LF1802
D1801 RECT
CN1851
DC(+)
DC(-)
CN1850
+18V
RY1801
RECT SW IC1801
G (POWER SUPPLY)
CN651
DC(+)
DC(-)
T607
D620 RECT
D640 RECT
T606
T608
D632 RECT
SWITCHING Q624,D639
STBY-REG CONTROL IC606
TO J BOARD CN2310
-20V
+20V
CN1605
SWITCHING 1 Q603
D610 SAT
D607 CLAMP
T603 PRT
SWITCHING 2 Q614
D616 CLAMP
D614 SAT
D622 POWER BACK-UP
D621 POWER BACK-UP
CN1628
ST-8/5
RY601
D634
D623 PROT
REG-REF CONT.AMP Q616
REG-REF CONTROL IC601
D628 OVP-REF
SLOW-START SWITCH Q620
D629
CONTROLLER Q623,D636
PROT
+10.5V
STND BY
RERAY DRIVE Q629
D638
OVP Q618,621
D626 RECT
D624 PROT
T605
T601 PIT
T604
D613 RECT
D603 RECT
RECT D630,D631
LIMITTER Q615,D618
TO A BOARD


+12V
G2 CONTROL Q812
D818 PROTECT
N-3
G2
DET
DF
N-853
D853(C)
D853(H)
D853 RECT2
N-851
D851(C)
D851(H)
D851 RECT1
FV
FOCUS BLOCK
FV(R)
FV(G)
FV(B)
CR BOARD
CG BOARD
CB BOARD
G2(B)
G2(G)
G2(R)
CB BOARD
CG BOARD
CR BOARD
K PROTECT 2 Q808
T803 FBT
HV
MV
ABL
N-22
FBT
YCJ
ABL
N-4
HV CONVERTER Q811
C PROT
C PROT
HV REG
DF OUT Q853
HV REG DET
IC803 (2)
RV902 HV REG
HV.BLOCK
HV(B)
HV(G)
HV(R)
TO PICTURE TUBE
T601 PIT
D604 RECT
D602 RECT
D605 RECT
T604
D615 RECT
D619 RECT
REG CONTROL AMP Q613,D617
D601 RECT
D613 RECT
D603 RECT
RECT D630,D631
REG CONTROL Q608,607,D609
RV601
225V REG CONT
REG AMP Q604,630
LIMITTER Q615,D618
CN1627
115V
+18V
-18V
-125V
TO A BOARD CN1107
CN1653
+18V
-18V
TO D BOARD D-7
CN1652
H(+)
H(-)
225V
15
TO CB BOARD
CN1654
115V
+18V
PROT
CN1650
18V


DO (FOR AP-GA)
CN1302
CLK
DAT
VM MUTE
V BLK
HD
HP
HP(-)
C PROT
V PROT
TO A BOARD
CN1303
V PROT
B-V
R-V
C PROT
BUS DET IC1303
BUFFER Q1301
BUFFER Q1302
R.CENT(H) IC1302
G.B.CENT(H) IC1303
R DRIVE Q1310,1311
G DRIVE Q1314,1315
B DRIVE Q1312,1313
CN1306
R-H(+)
R-H(-)
CPROT
CN1308
G-H(+)
G-H(-)
CN1309
B-H(-)
B-H(+)
CN1305
HGC
HRC
HBC
VBLK
HBLK
PIN
HP 2 Q1309
D1307 SLICER
D1304 -15V RECT
D1303 15V RECT
T1301
T1302
H OUT Q1308
H DRIVE Q1305
PIN OUT Q1308
PIN AMP PIN BUFFER Q1303,1304,1306
DS (SIN WAVE GEN)
+5V
RV983
RV984
IC1711 WAVE GAIN
IC1713 WAVE GAIN
IC1712 SIN GEN
V.SIN
H.SIN
DS-6
H PARA(+)
H SAW(-)
V PARA(+)
V SAW(-)
TO A BOARD
D-14
PIN4
HBC1
HGC2
HRC3
H BLK
V BLK
D-5
H PARA(-)
H PARA(+)
V PARA(+)
H.SAW(+)
PROT
D-6
V.SAW(-)
H.SAW(-)
V PARA(+)
H PARA(+)
V.SIN
H.SIN
VB
VG
VR
HB
HG
HR
+5V
-5V
RV901
RV902
RV903
RV904
RV905
RV906
RV907
RV908
RV909
RV910
RV911
RV912
RV913
RV914
RV915
RV916
RV917
RV918
RV919
RV920
RV921
RV922
RV923
RV924
RV925
RV926
RV927
RV928
RV929
RV930
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RV932
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RV937
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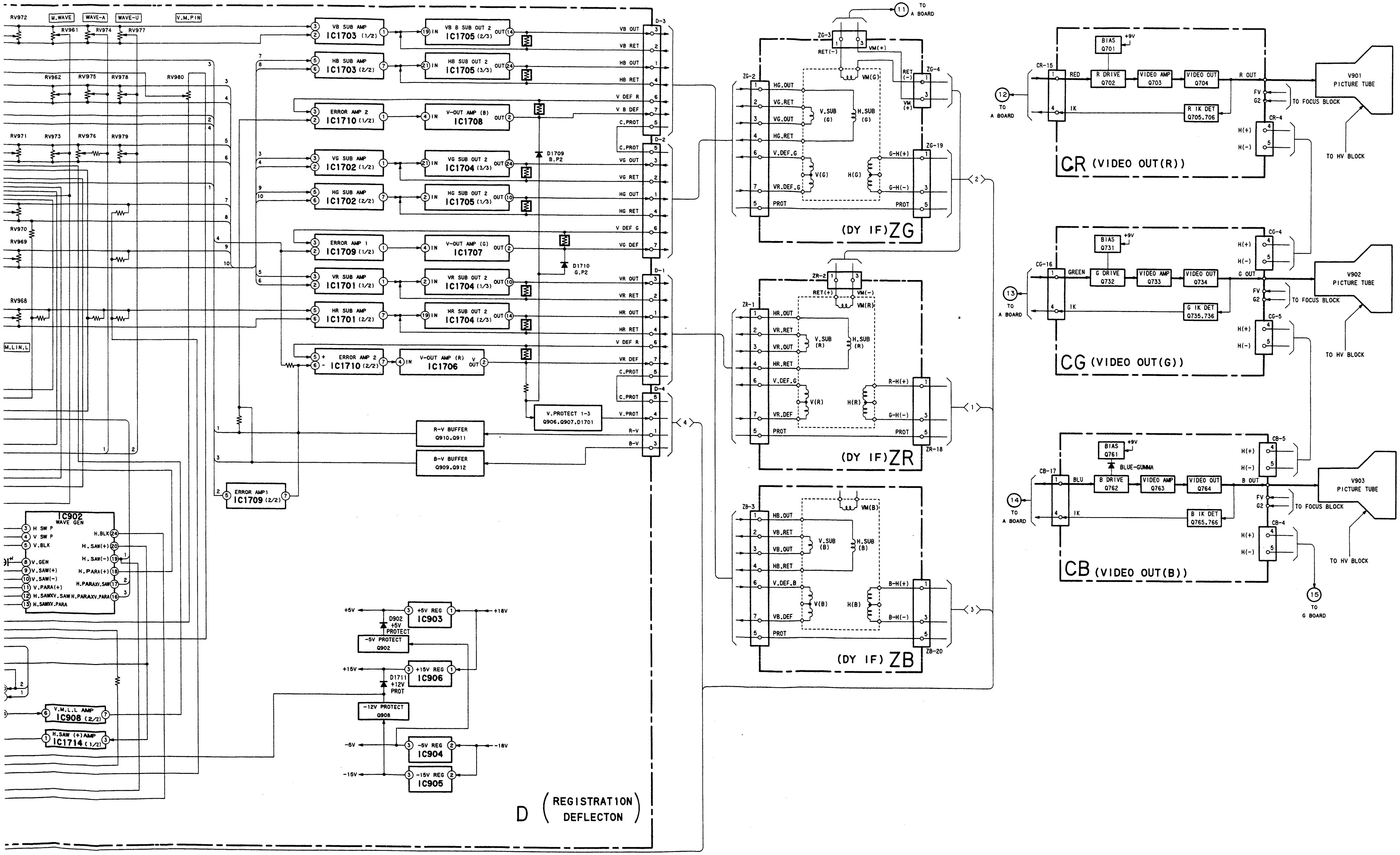
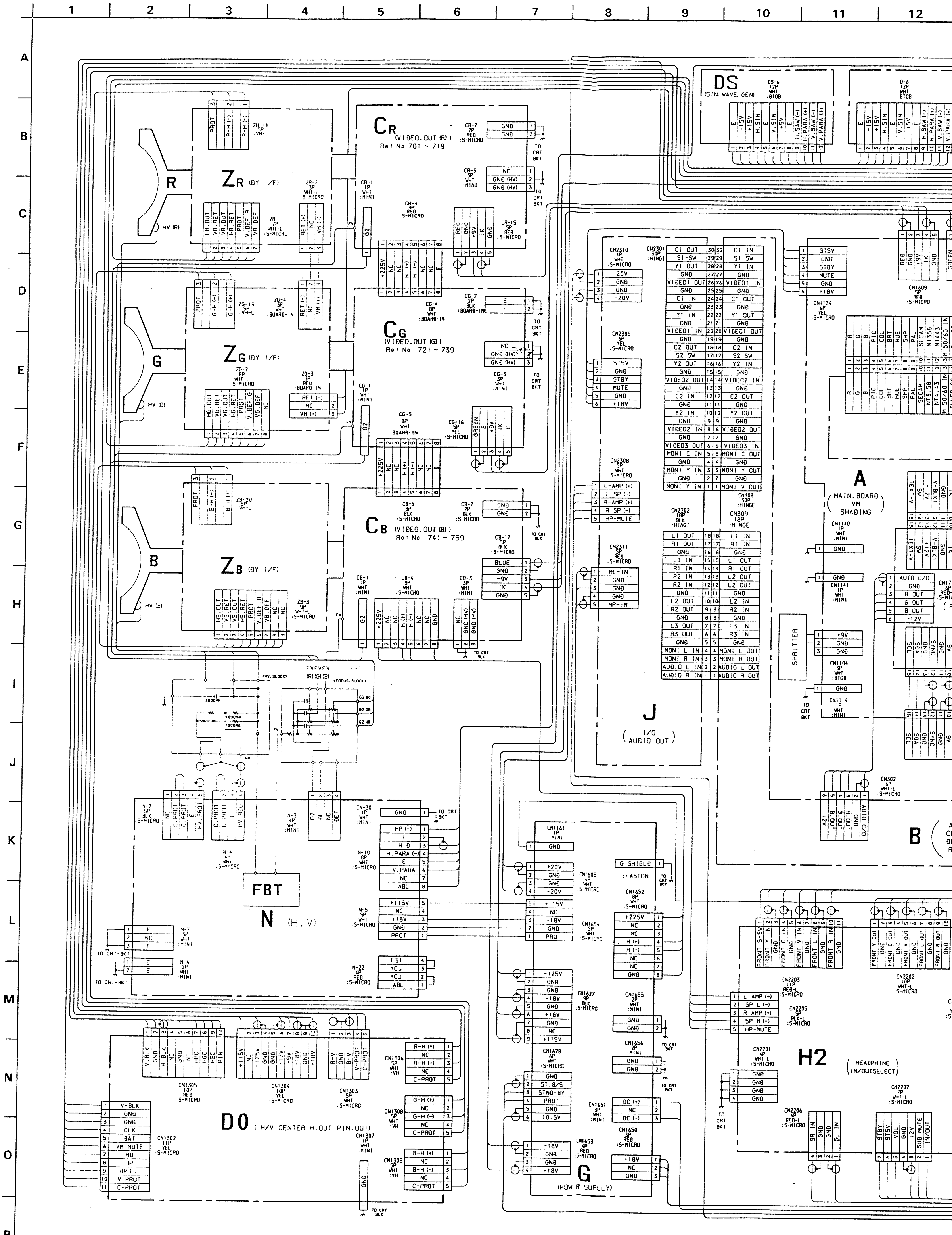
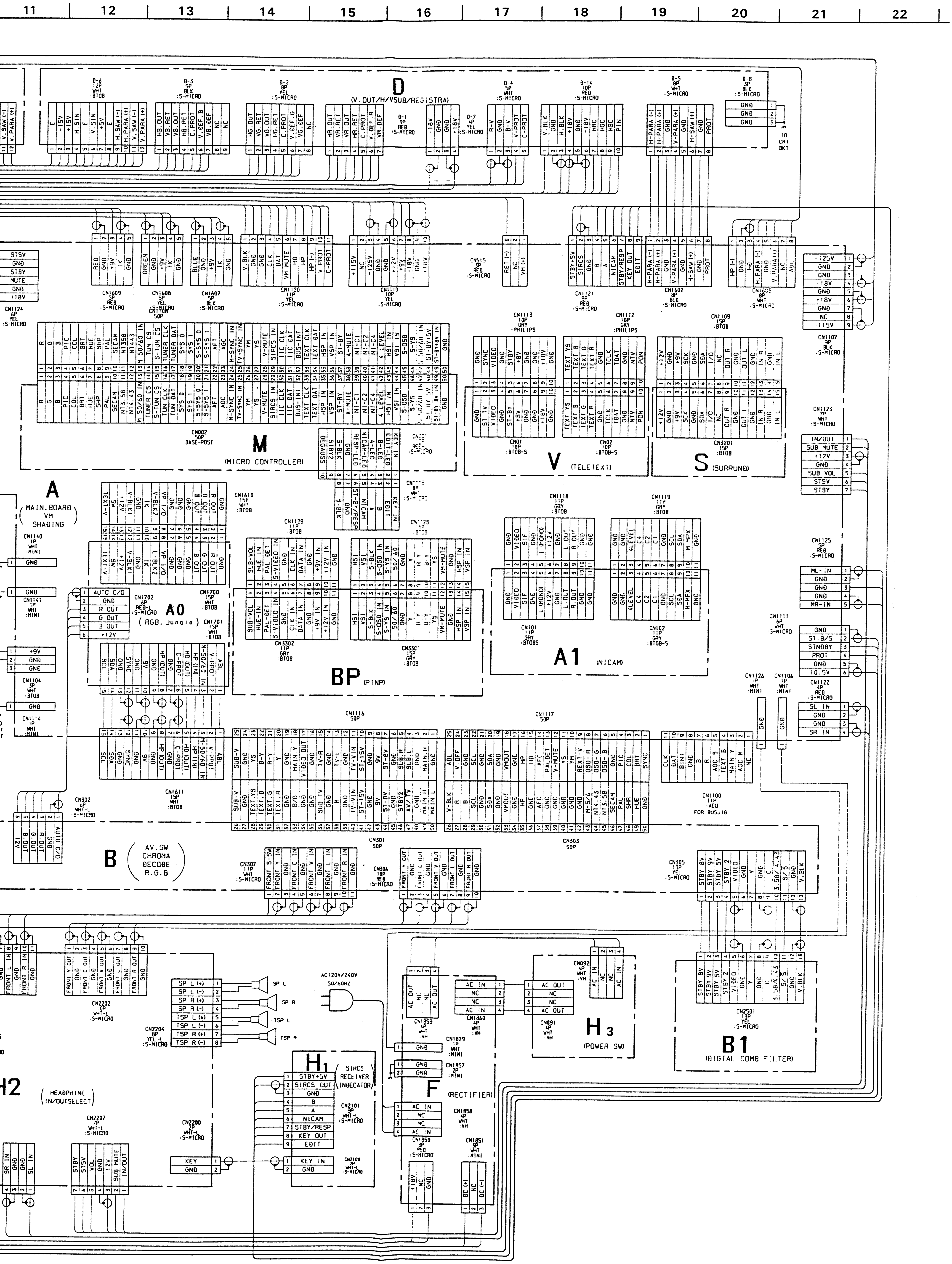
RV964
RV965
RV966
RV967
RV968
RV969
RV970
RV971
RV972
RV973
RV974
RV975
RV976
RV977
RV978
RV979
M.WAVE
WAVE-A
WAVE-U
CENT
VS+
SIZE
LIN
SKEW
KEYS
BOW
PIN
SUB SKEW
SUB BOW
V/WING
H/M.PIN
M.LIN.S
M.LIN.L
VS-
H4 AMP IC1718 (1/2)
V PIN AMP IC1714 (2/2)
V PARA(+)AMP IC901 (1/2)
IC910 MULTIPLIER
V PARA(+)
V SAW+V3
KEY
VS-
V4
H4
V PARAXH3
V PARAX(H3)²
(VS+V3) X(H PARA+H4)
H3-B
H PARA+H4
H PARA(+)
H3XH3
V SAW+V3
H SAW(+)
IC902 WAVE GEN
H SW P
V SW P
V.BLK
V.GEN
V.SAW(+)
V.SAW(-)
V.PARA(+)
H.SAWXV.SAW
H.SAWXV.PARA
H.BLK
H.SAW(+)
H.SAW(-)
H.PARA(+)
H.PARAXV.SAW
H.PARAXV.PARA
V.SAW+V3 COMPARATER IC1715 (1/2)
H.PARA(-)AMP IC901 (2/2)
H.PARA+H4 COMPARATER IC908 (1/2)
IC907
V.M.L.L AMP IC908 (2/2)
H.SAW (+)AMP IC1714 (1/2)
RV982
RV981
V.SIN AMP IC1715 (2/2)
H.SIN AMP IC1718 (2/2)

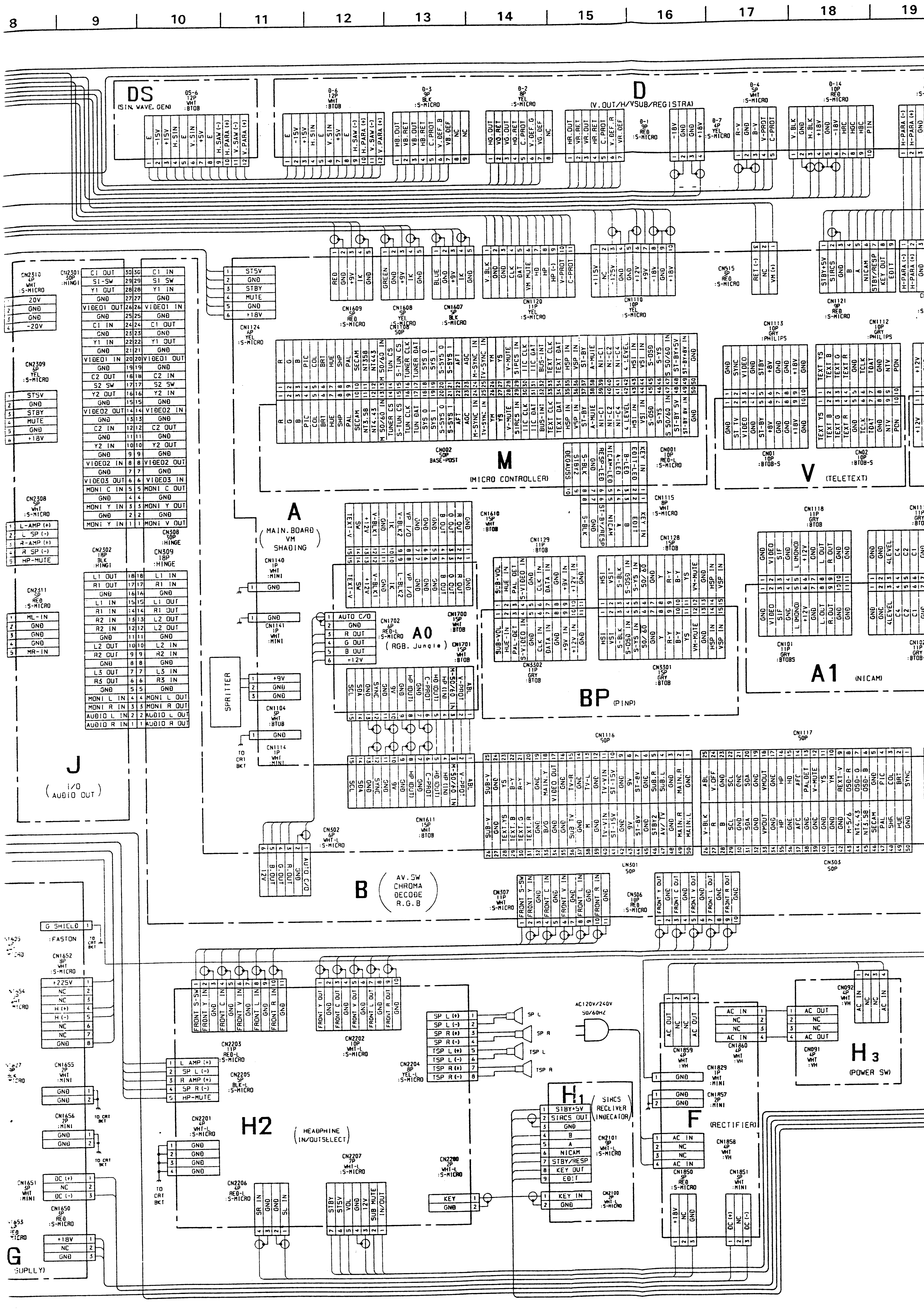

RV972
M.WAVE
WAVE-A
WAVE-U
V.M.PIN
RV961
RV974
RV977
RV962
RV975
RV978
RV980
RV971
RV973
RV976
RV979
RV970
RV969
RV968
M.LIN.L
VB SUB AMP IC1703 (1/2)
VB B SUB OUT 2 IC1705 (2/3)
HB SUB AMP IC1703 (2/2)
HB SUB OUT 2 IC1705 (3/3)
ERROR AMP 2 IC1710 (1/2)
V-OUT AMP (B) IC1708
VG SUB AMP IC1702 (1/2)
VG SUB OUT 2 IC1704 (3/3)
HG SUB AMP IC1702 (2/2)
HG SUB OUT 2 IC1705 (1/3)
ERROR AMP 1 IC1709 (1/2)
V-OUT AMP (G) IC1707
VR SUB AMP IC1701 (1/2)
VR SUB OUT 2 IC1704 (1/3)
HR SUB AMP IC1701 (2/2)
HR SUB OUT 2 IC1704 (2/3)
ERROR AMP 2 IC1710 (2/2)
V-OUT AMP (R) IC1706
D1709 B.P2
D1710 G.P2
V.PROTECT 1-3 Q906,Q907,D1701
R-V BUFFER Q910,Q911
B-V BUFFER Q909,Q912
ERROR AMP1 IC1709 (2/2)
D-3
VB OUT
VB RET
HB OUT
HB RET
V DEF R
V B DEF
C.PROT
D-2
VG OUT
VG RET
HG OUT
HG RET
V DEF G
VG DEF
D-1
VR OUT
VR RET
HR OUT
HR RET
V DEF R
VR DEF
D-4
V.PROT
R-V
B-V
IC902 WAVE GEN
H SW P
V SW P
V.BLK
V.GEN
V.SAW(+)
V.SAW(-)
V.PARA(+)
H.SAWXV.SAW H.PARAXV.PARA
H.SAWXV.PARA
H.BLK
H.SAW(+)
H.SAW(-)
H.PARA(+)
H.PARAXV.SAW
V.M.L.L AMP IC908 (2/2)
H.SAW (+) AMP IC1714 (1/2)
+5V
+5V REG IC903
+18V
D902 +5V PROTECT
-5V PROTECT Q902
+15V
+15V REG IC906
D1711 +12V PROT
-12V PROTECT Q908
-5V
-5V REG IC904
-18V
-15V
-15V REG IC905
D (REGISTRATION DEFLECTON)
11 TO A BOARD
ZG-3
RET(-)
VM(+)
VM(G)
ZG-2
HG.OUT
VG.RET
VG.OUT
HG.RET
V.DEF.G
VR.DEF.G
PROT
V.SUB (G)
H.SUB (G)
V(G)
H(G)
G-H(+)
G-H(-)
ZG-4
ZG-19
(DY IF) ZG
ZR-2
RET(+)
VM(-)
VM(R)
ZR-1
HR.OUT
VR.RET
VR.OUT
HR.RET
V.DEF.G
VR.DEF
V.SUB (R)
H.SUB (R)
V(R)
H(R)
R-H(+)
G-H(-)
ZR-18
(DY IF) ZR
ZB-3
VM(B)
HB.OUT
VB.RET
VB.OUT
HB.RET
V.DEF.B
VB.DEF
V.SUB (B)
H.SUB (B)
V(B)
H(B)
B-H(+)
B-H(-)
ZB-20
(DY IF) ZB
CR-15
RED
BIAS Q701
+9V
R DRIVE Q702
VIDEO AMP Q703
VIDEO OUT Q704
R OUT
R IK DET Q705,706
IK
FV
G2
TO FOCUS BLOCK
V901 PICTURE TUBE
CR-4
H(+)
H(-)
TO HV BLOCK
12 TO A BOARD
CR (VIDEO OUT(R))
CG-4
CG-16
GREEN
BIAS Q731
G DRIVE Q732
VIDEO AMP Q733
VIDEO OUT Q734
G OUT
G IK DET Q735,736
V902 PICTURE TUBE
CG-5
13 TO A BOARD
CG (VIDEO OUT(G))
CB-5
CB-17
BLU
BIAS Q761
BLUE-GUMMA
B DRIVE Q762
VIDEO AMP Q763
VIDEO OUT Q764
B OUT
B IK DET Q765,766
V903 PICTURE TUBE
CB-4
14 TO A BOARD
CB (VIDEO OUT(B))
15 TO G BOARD

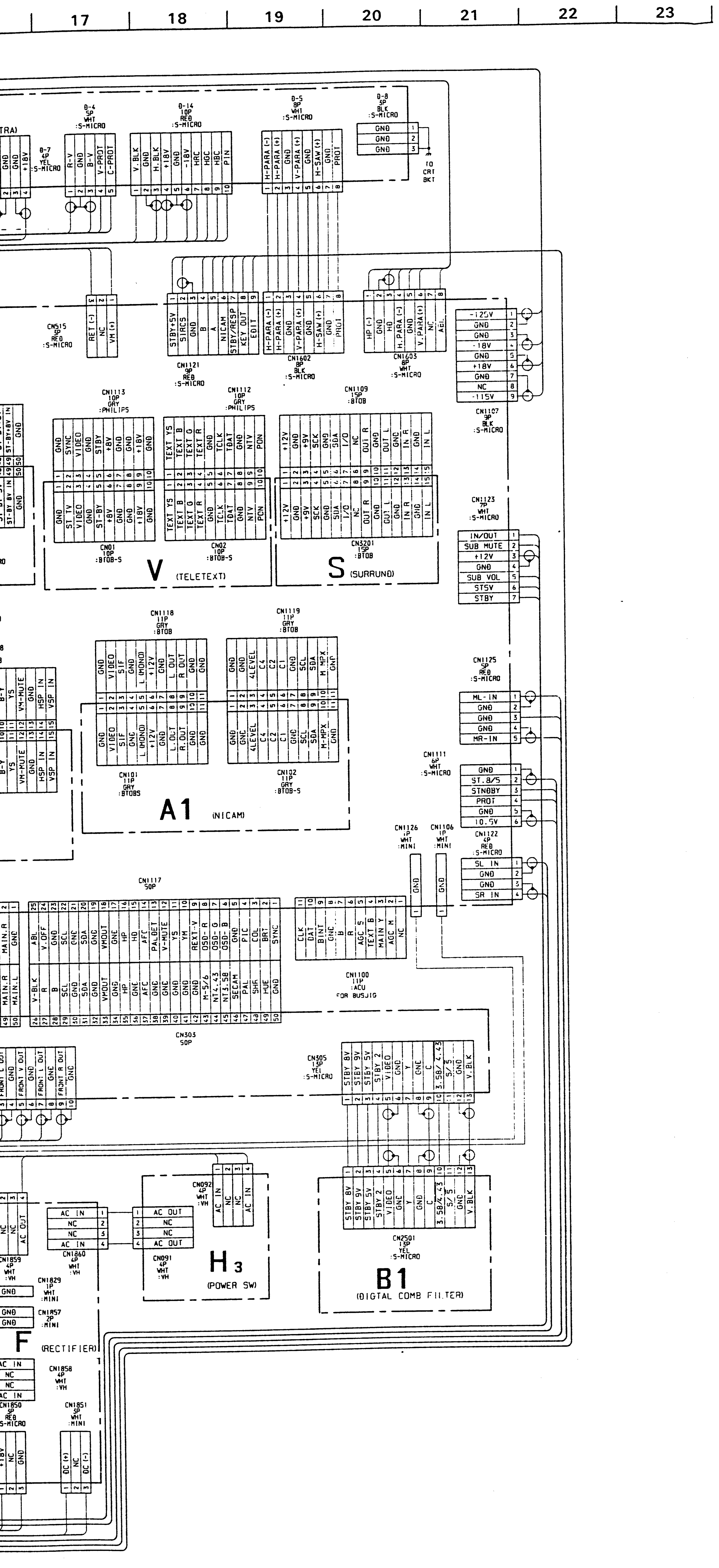
5-2. FRAME SCHEMATIC DIAGRAM



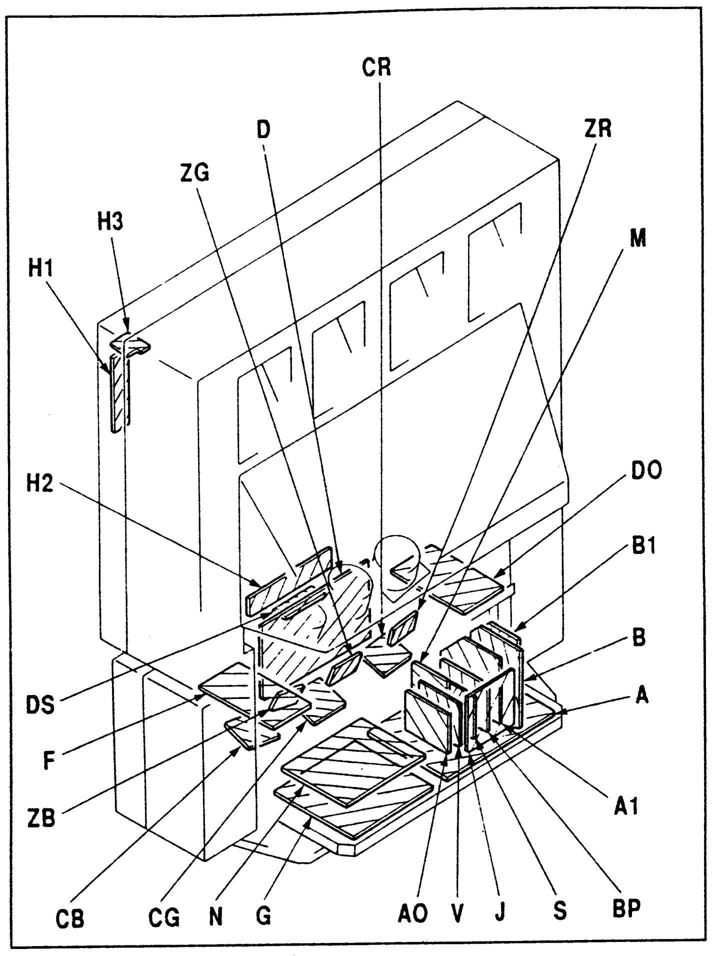
DS (SIN. WAVE. GEN)
CR (VIDEO. OUT (R)) Ref No 701 ~ 719
ZR (DY I/F)
CG (VIDEO. OUT (G)) Ref No 721 ~ 739
ZG (DY I/F)
CB (VIDEO. OUT (B)) Ref No 741 ~ 759
ZB (DY I/F)
R
G
B
HV (R)
HV (G)
HV (B)
<HV. BLOCK>
<FOCUS. BLOCK>
FBT
N (H.V)
J (I/O AUDIO OUT)
A (MAIN. BOARD VM SHADING)
B
G (POWER SUPPLY)
H2 (HEADPHINE IN/OUTSELECT)
D0 (H/V CENTER H.OUT PIN.OUT)
SPRITTER
TO CRT BKT


11
12
13
14
15
16
17
18
19
20
21
22
D
(V.OUT/H/VSUB/REGISTRA)
TO CRT BKT
M
(MICRO CONTROLLER)
CN002 50P BASE-POST
V
(TELETEXT)
S
(SURRUND)
A
(MAIN.BOARD VM SHADING)
A0
(RGB. Jungle)
BP
(PINP)
A1
(NICAM)
B
(AV.SW CHROMA DECODE R.G.B)
H2
(HEADPHINE IN/OUTSELECT)
H1
(SIRCS RECEIVER INDECATOR)
F
(RECTIFIER)
H3
(POWER SW)
B1
(DIGTAL COMB FILTER)
AC120V/240V 50/60Hz
SP L
SP R
TSP L
TSP R
CN1609
CN1608
CN1607
CN1120
CN1110
CN515
CN1121
CN1602
CN1603
CN1107
CN1124
CN1113
CN1112
CN1109
CN001
CN002
CN3201
CN1123
CN1610
CN1129
CN1118
CN1119
CN1125
CN1111
CN1140
CN1141
CN1702
CN1700
CN1701
CN3302
CN3301
CN101
CN102
CN1104
CN1114
CN1126
CN1106
CN1122
CN1116
CN1117
CN1611
CN1100
CN302
CN307
CN306
CN301
CN303
CN305
CN2202
CN2204
CN092
CN091
CN1859
CN1860
CN1829
CN1857
CN2501
CN2101
CN2100
CN1858
CN1850
CN1851
CN2207
CN2200


8
9
10
11
12
13
14
15
16
17
18
19
DS
(SIN. WAVE. GEN)
D
(V. OUT/H/VSUB/REGISTRA)
M
(MICRO CONTROLLER)
V
(TELETEXT)
A
(MAIN. BOARD VM SHADING)
A0
(RGB. Jungle)
BP
(PINP)
A1
(NICAM)
J
(I/O AUDIO OUT)
B
(AV. SW CHROMA DECODE R. G. B)
SPRITTER
H2
(HEADPHINE IN/OUTSELECT)
H1
(SIRCS RECEIVER INDICATOR)
F
(RECTIFIER)
H3
(POWER SW)
G
SUPLLY)
AC120V/240V 50/60HZ
SP L
SP R
TSP L
TSP R
TO CRT BKT
CN1116 50P
CN1117 50P
CN1611 15P WHT :BTOB
CN501 50P
CN303 50P
CN502 6P WHT-L :S-MICRO
CN307 11P WHT :S-MICRO
CN306 10P RED :S-MICRO
CN2203 11P RED-L :S-MICRO
CN2202 10P WHT-L :S-MICRO
CN2204 8P YEL-L :S-MICRO
CN2205 5P BLK-L :S-MICRO
CN2201 4P WHT-L :S-MICRO
CN2206 4P RED-L :S-MICRO
CN2207 7P WHT-L :S-MICRO
CN2200 2P WHT-L :S-MICRO
CN2101 9P WHT-L :S-MICRO
CN2100 2P WHT-L :S-MICRO
CN1859 4P WHT :VH
CN1860 4P WHT :VH
CN1829 1P WHT :MINI
CN1857 2P :MINI
CN1858 4P WHT :VH
CN1850 5P RED :S-MICRO
CN1851 2P WHT :MINI
CN092 4P WHT :VH
CN091 4P WHT :VH
CN1652 8P WHT :S-MICRO
CN1655 2P WHT :MINI
CN1656 2P :MINI
CN1651 3P WHT :MINI
CN1650 3P RED :S-MICRO
CN2310 4P WHT :S-MICRO
CN2301 30P :HINGI
CN2309 6P YEL :S-MICRO
CN2308 5P WHT :S-MICRO
CN2302 18P BLK :HINGI
CN309 18P :HINGE
CN508 30P :HINGE
CN2311 5P RED :S-MICRO
CN1124 6P YEL :S-MICRO
CN1609 5P RED :S-MICRO
CN1608 5P YEL :S-MICRO
CN1607 5P BLK :S-MICRO
CN1120 11P YEL :S-MICRO
CN1110 10P YEL :S-MICRO
CN515 3P RED :S-MICRO
CN1121 9P RED :S-MICRO
CN1113 10P GRY :PHILIPS
CN1112 10P GRY :PHILIPS
CN002 50P BASE-POST
CN001 10P RED-L :S-MICRO
CN01 10P :BTOB-S
CN02 10P :BTOB-S
CN1115 8P WHT :S-MICRO
CN1610 15P WHT :BTOB
CN1129 11P :BTOB
CN1128 15P :BTOB
CN1118 11P GRY :BTOB
CN101 11P GRY :BTOBS
CN1140 1P WHT :MINI
CN1141 1P WHT :MINI
CN1702 6P RED-L :S-MICRO
CN1700 15P WHT :BTOB
CN1701 15P WHT :BTOB
CN1104 3P WHT :BTOB
CN1114 1P WHT :MINI
CN3302 11P GRY :BTOB
CN3301 15P GRY :BTOB
DS-6 12P WHT :BTOB
D-6 12P WHT :BTOB
D-3 9P BLK :S-MICRO
D-2 8P YEL :S-MICRO
D-1 9P RED :S-MICRO
D-7 4P YEL :S-MICRO
D-4 5P WHT :S-MICRO
D-14 10P RED :S-MICRO
G SHIELD
:FASTON


17
18
19
20
21
22
23
TO CRT BKT
CN515 3P :S-MICRO
CN1121 9P RED :S-MICRO
CN1602 8P BLK :S-MICRO
CN1603 8P WHT :S-MICRO
CN1107 9P BLK :S-MICRO
CN1113 10P GRY :PHILIPS
CN1112 10P GRY :PHILIPS
CN1109 15P :BTOB
CN01 10P :BTOB-S
CN02 10P :BTOB-S
CN3201 15P :BTOB
V (TELETEXT)
S (SURRUND)
CN1123 7P WHT :S-MICRO
CN1118 11P GRY :BTOB
CN1119 11P GRY :BTOB
CN101 11P GRY :BTOBS
CN102 11P GRY :BTOB-S
A1 (NICAM)
CN1125 5P RED :S-MICRO
CN1111 6P WHT :S-MICRO
CN1126 1P WHT :MINI
CN1106 1P WHT :MINI
CN1122 4P RED :S-MICRO
CN1117 50P
CN1100 11P :ACU FOR BUSJIG
CN303 50P
CN305 13P YEL :S-MICRO
CN092 4P WHT :VH
CN091 4P WHT :VH
H3 (POWER SW)
CN2501 13P YEL :S-MICRO
B1 (DIGTAL COMB FILTER)
CN1859 4P WHT :VH
CN1860 WHT :VH
CN1829 1P WHT :MINI
CN1857 2P :MINI
F (RECTIFIER)
CN1858 4P WHT :VH
CN1850 5P RED :S-MICRO
CN1851 5P WHT :MINI

5-3. CIRCUIT BOARDS LOCATION


CR
D
ZR
ZG
H3
M
H1
H2
DO
B1
B
DS
A
F
A1
ZB
CB
CG
N
G
AO
V
J
S
BP

5-4. SCHEMATIC DIAGRAMS AND PRINTED WIRING BOARDS

Note :

Note: The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

- All capacitors are in μ F unless otherwise noted. p : μ μ F. 50WV or less are not indicated except for electolytic and tantalums.
- All resistors are in ohms.
  k Ω =1000 Ω, M Ω =1000k Ω
- Indication of resistance, which does not have one for rating electrical power is as follows.

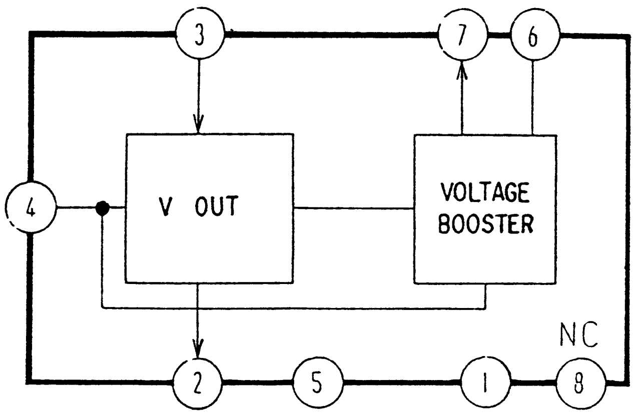
  Pitch : 5mm
  Rating electrical power : ¼W

- ▭ : nonflamable resistor.
- △ : internal component.
- ☐ : panel designation or adjustment for repair.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.

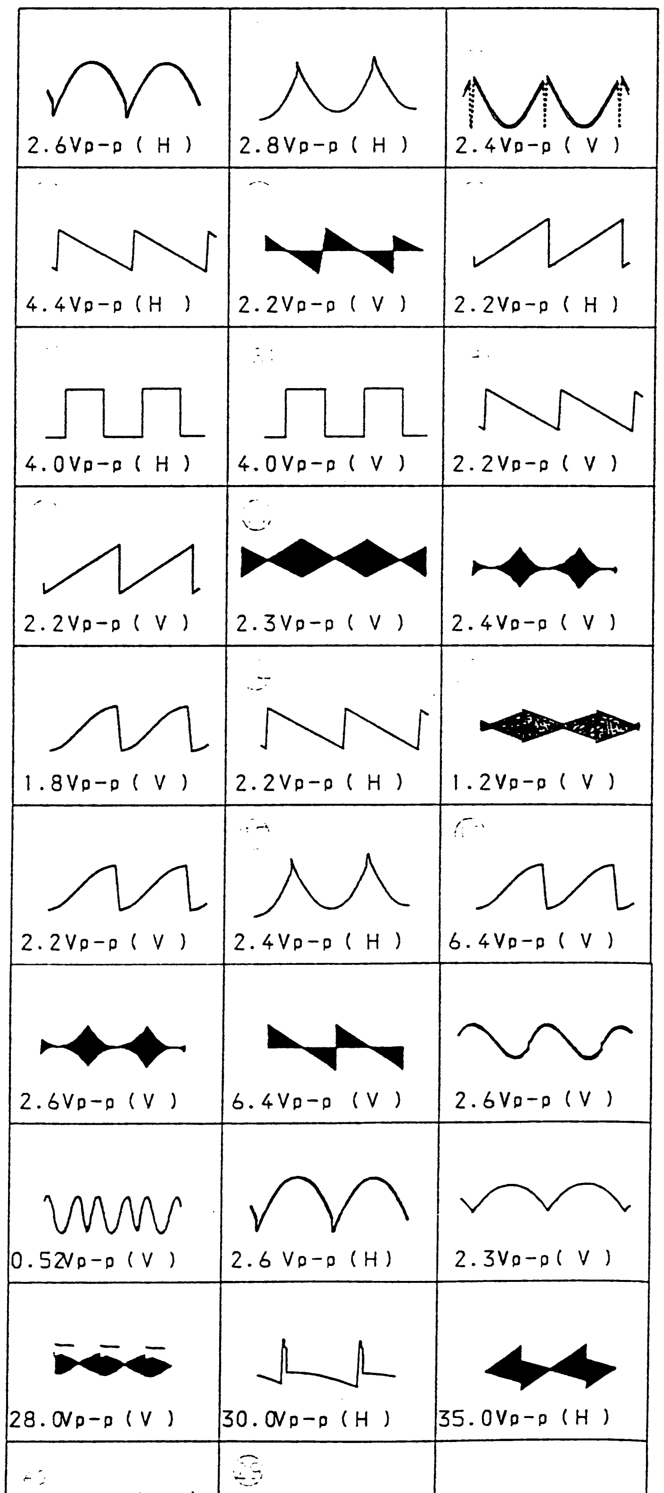
Reference information

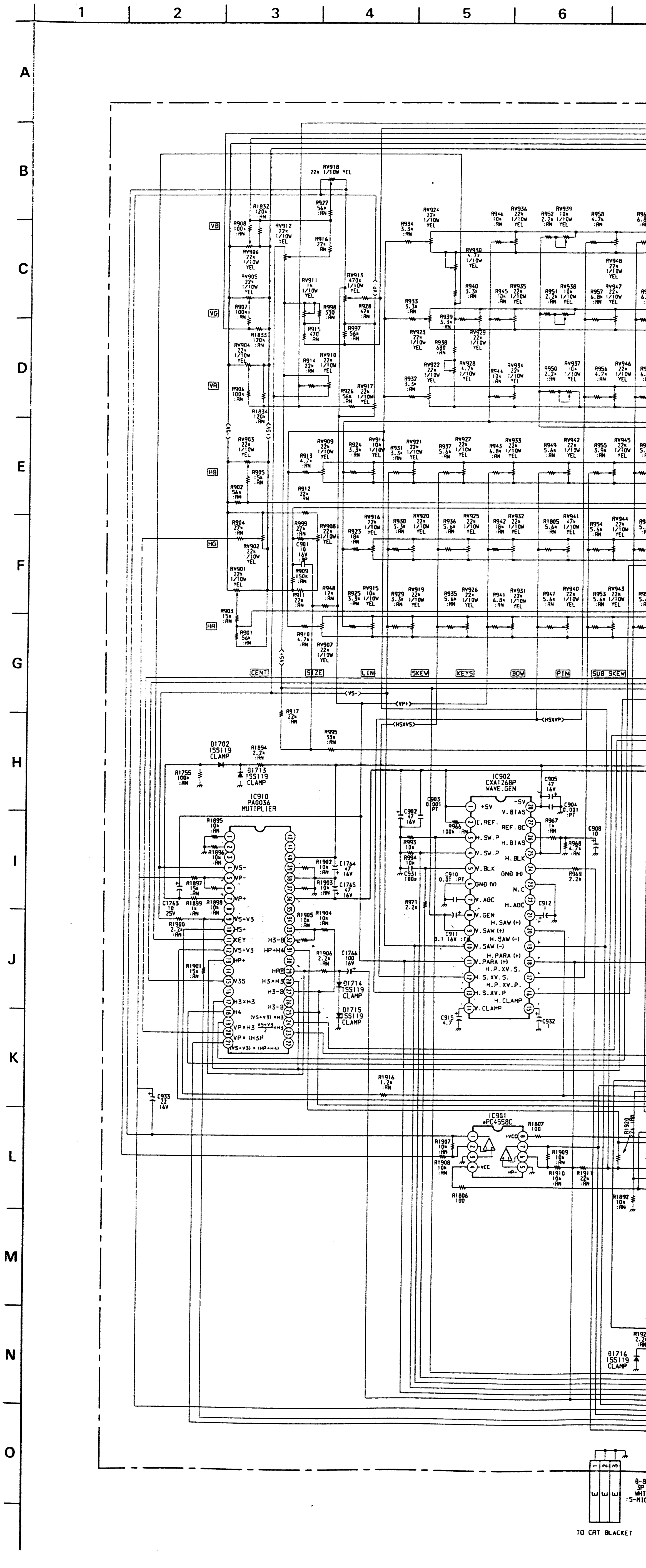
RESISTOR	: RN	METAL FILM
	: RC	SOLID
	: FPRD	NONFLAMMABLE CARBON
	: FUSE	NONFLAMMABLE FUSIBLE
	: RS	NONFLAMMABLE METAL OXIDE
	: RB	NONFLAMMABLE CEMENT
	: RW	NONFLAMMABLE WIREWOUND
	: ※	ADJUSTMENT RESISTOR
COIL	: LF-8L	MICRO INDUCTOR
CAPACITOR	: TA	TANTALUM
	: PS	STYROL
	: PP	POLYPROPYLENE
	: PT	MYLAR
	: MPS	METALIZED POLYESTER
	: MPP	METALIZED POLYPROPYLENE
	: ALB	BIPOLAR
	: ALT	HIGH TEMPERATURE
	: ALR	HIGH RIPPLE

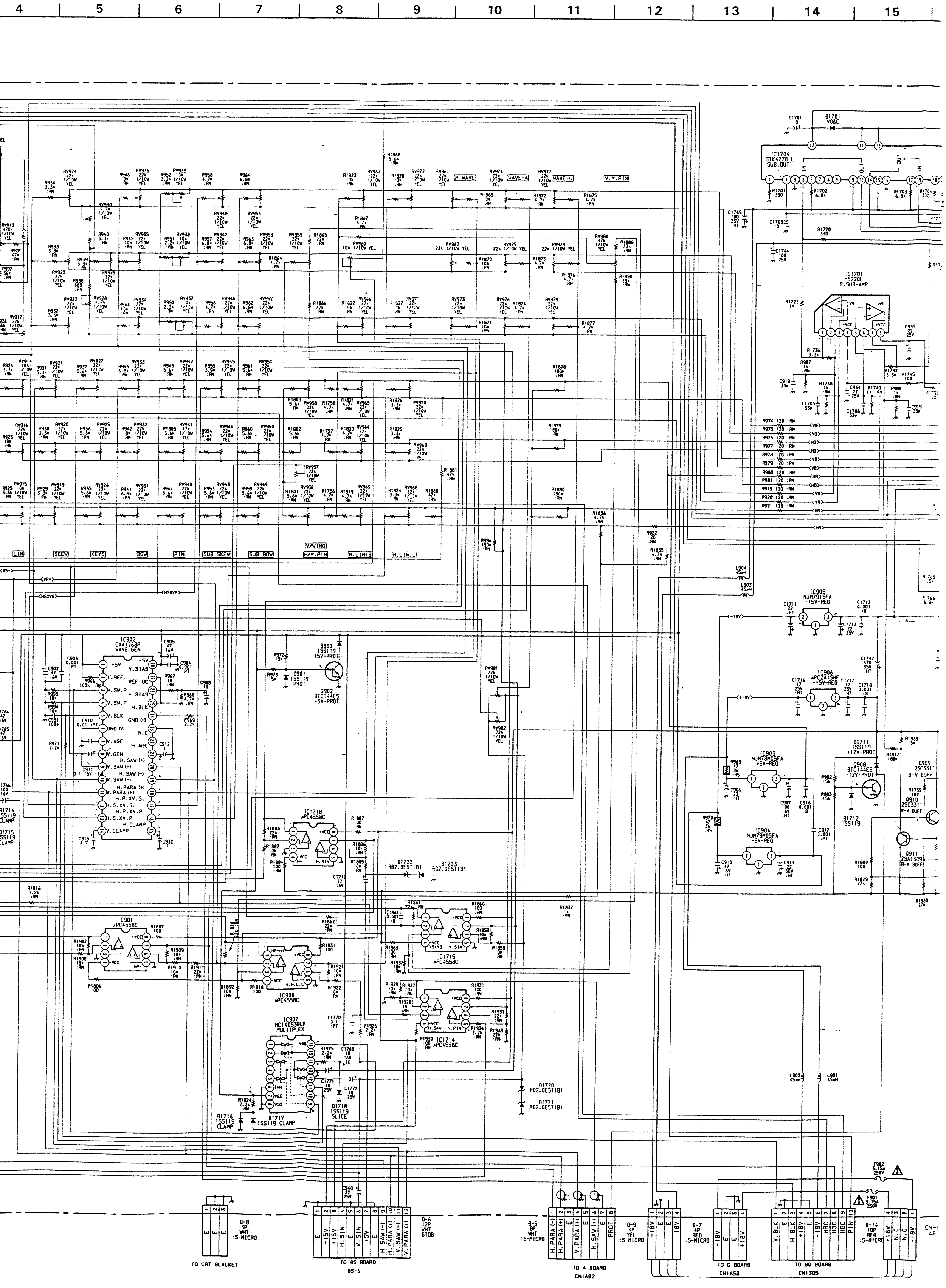
D Board IC1706,1707,1708 E PC1498H


3
7
6
4
V OUT
VOLTAGE BOOSTER
NC
2
5
1
8

D Board Waveforms




1
2
3
4
5
6
A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
VB
VG
VR
HB
HG
HR
CENT
SIZE
LIN
SKEW
KEYS
BOW
PIN
SUB SKEW
D1702 1SS119 CLAMP
D1713 1SS119 CLAMP
IC910 PA0036 MUTIPLIER
IC902 CXA1268P WAVE.GEN
D1714 1SS119 CLAMP
D1715 1SS119 CLAMP
IC901 μPC4558C
D1716 1SS119 CLAMP
TO CRT BLACKET


4
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6
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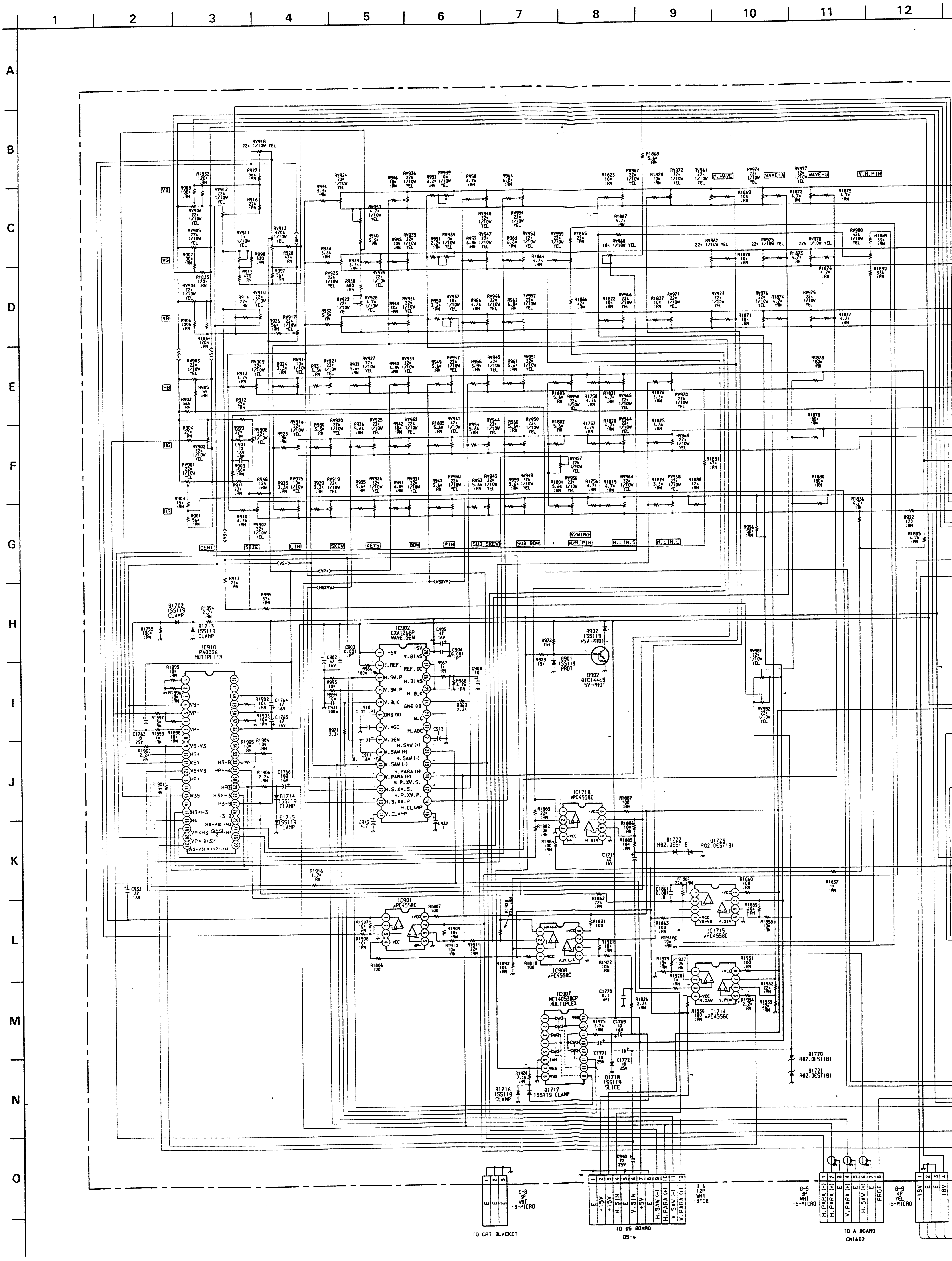
10
11
12
13
14
15
IC1704 STK4278-L SUB.OUT1
IC1701 M5220L R.SUB-AMP
D1701 V06C
C1701 10
M.WAVE
WAVE-A
WAVE-U
V.M.PIN
LIN
SKEW
KEYS
BOW
PIN
SUB SKEW
SUB BOW
V/WING
H/M.PIN
M.LIN:S
M.LIN:L
IC902 CXA1268P WAVE.GEN
+5V
V.BIAS
I.REF.
REF. OC
H.SW.P
H.BIAS
V.SW.P
H.BLK
V.BLK
GND (H)
GND (V)
N.C
V.AGC
H.AGC
V.GEN
H.SAW (+)
V.SAW (+)
H.SAW (-)
V.SAW (-)
H.PARA (+)
V.PARA (+)
H.P.XV.S.
H.S.XV.S.
H.P.XV.P.
H.S.XV.P
H.CLAMP
V.CLAMP
Q902 1SS119 +5V-PROT
D901 1SS119 PROT
Q902 DTC144ES -5V-PROT
IC1718 μPC4558C
IC901 μPC4558C
IC908 μPC4558C
IC1715 μPC4558C
IC1714 μPC4558C
IC907 MC14053BCP MULTIPLEX
D1716 1SS119 CLAMP
D1717 1SS119 CLAMP
D1718 1SS119 SLICE
D1720 RB2.0EST1B1
D1721 RB2.0EST1B1
D1722 RB2.0EST1B1
D1723 RB2.0EST1B1
IC905 NJM7915FA -15V-REG
IC906 μPC2415HF +15V-REG
IC903 NJM78M05FA +5V-REG
IC904 NJM79M05FA -5V-REG
D1711 1SS119 +12V-PROT
Q908 DTC144ES -12V-PROT
D1712 1SS119
Q909 2SC3311 B-V BUFF
Q910 2SC3311 R-V BUFF
Q911 2SA1309 R-V BUFF
L904 45μH
L903 45μH
L902 45μH
L901 45μH
F902 3.15A 250V
F901 3.15A 250V
(-18V)
(+18V)
(HSXVS)
(HSXVP)
(VS+)
(VP+)
(VG)
(HG)
(VB)
(HB)
(VR)
(HR)
8-8 3P WHT :S-MICRO
TO CRT BLACKET
E E E
8-6 12P WHT :BTOB
TO BS BOARD BS-6
E -15V +15V H.SIN E V.SIN +5V E H.SAW (-) H.PARA (+) V.SAW (+) V.PARA (-)
8-5 8P WHT :S-MICRO
TO A BOARD CN1602
H.PARA (-) H.PARA (+) E V.PARA (+) E H.SAW (+) E PROT
8-9 4P YEL :S-MICRO
-18V E E 18V
8-7 4P RED :S-MICRO
TO G BOARD CN1653
-18V E E +18V
8-14 10P RED :S-MICRO
TO BD BOARD CN1305
V.BLK H.BLK +18V E -18V HRC HDC PIN
+18V N.C -18V
CN- 4P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B
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D
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F
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H
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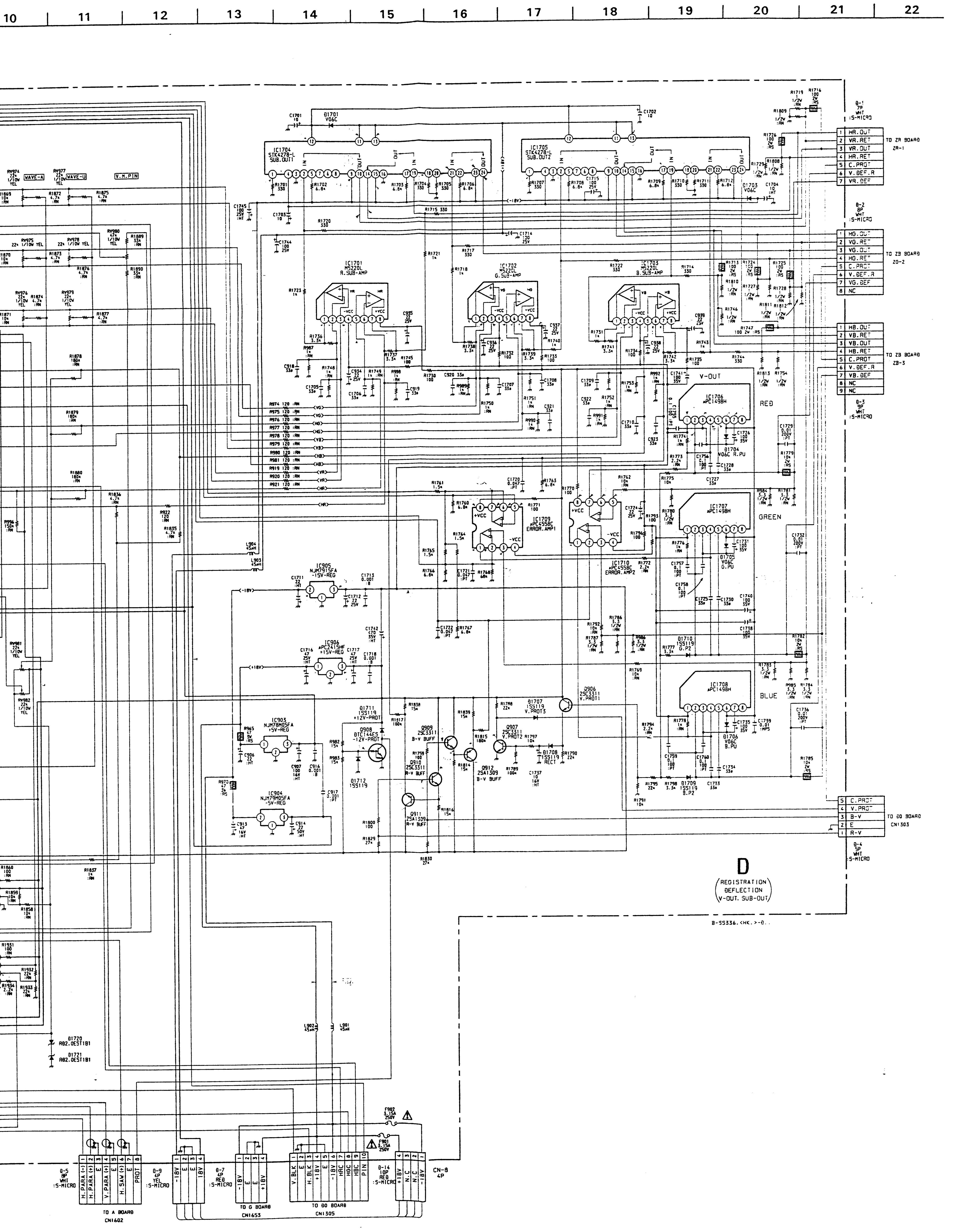
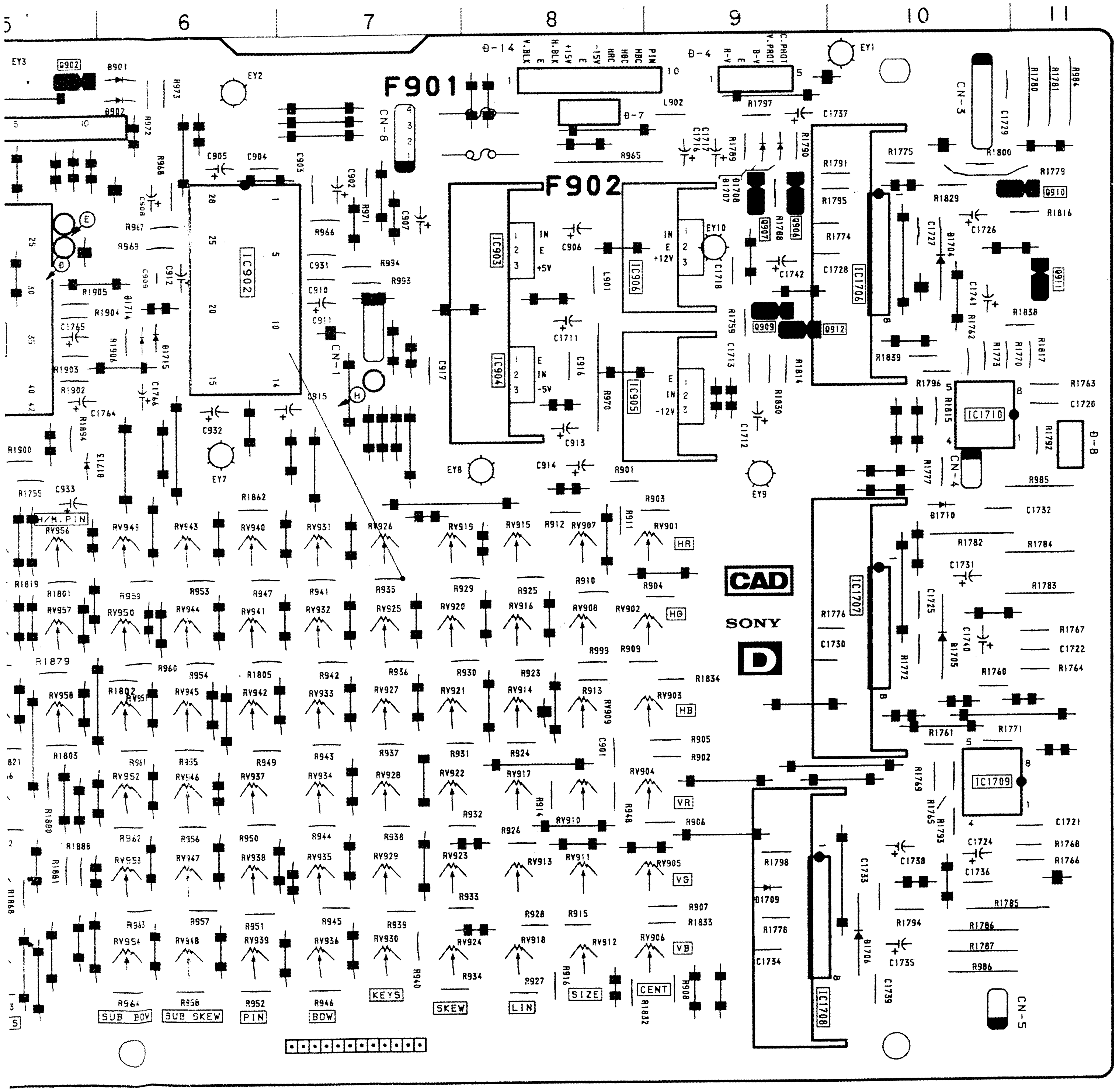
J
K
L
M
N
O
VB
VG
VR
HB
HG
HR
CENT
SIZE
LIN
SKEW
KEYS
BOW
PIN
SUB SKEW
SUB BOW
V/WING
H/M.PIN
M.LIN.S
M.LIN.L
H.WAVE
WAVE-A
WAVE-U
V.M.PIN
IC910 PA0036 MULTIPLIER
IC902 CXA1268P WAVE.GEN
IC901 μPC4558C
IC908 μPC4558C
IC907 MC14053BCP MULTIPLEX
IC1718 μPC4558C
IC1715 μPC4558C
IC1714 μPC4558C
Q902 DTC144ES -5V-PROT
D902 1SS119 +5V-PROT
D901 1SS119 PROT
D1702 1SS119 CLAMP
D1713 1SS119 CLAMP
D1714 1SS119 CLAMP
D1715 1SS119 CLAMP
D1716 1SS119 CLAMP
D1717 1SS119 CLAMP
D1718 1SS119 SLICE
D1722 RD2.0ESTIB1
D1723 RD2.0ESTIB1
D1720 RD2.0ESTIB1
D1721 RD2.0ESTIB1
D-8 3P WHT :S-MICRO
TO CRT BLACKET
D-6 12P WHT :BTOB
TO DS BOARD DS-6
E
-15V
+15V
H.SIN
E
V.SIN
+5V
E
H.SAW (-)
H.PARA (+)
H.SAW (+)
V.PARA (+)
D-5 8P WHT :S-MICRO
H.PARA (-)
E
V.PARA (+)
E
H.SAW (+)
E
PROT
TO A BOARD CN1602
D-9 4P YEL :S-MICRO
-18V
E
E
18V



10
11
12
13
14
15
16
17
18
19
20
21
22
IC1704 STK4278-L SUB.OUT1
IC1705 STK4278-L SUB.OUT2
IC1701 M5220L R.SUB-AMP
IC1702 M5220L G.SUB-AMP
IC1703 M5220L B.SUB-AMP
D1701 V06C
D1703 V06C
IC1706 μPC1498H
IC1707 μPC1498H
IC1708 μPC1498H
V-OUT
RED
GREEN
BLUE
IC1709 μPC4558C ERROR.AMP1
IC1710 μPC4558C ERROR.AMP2
IC905 NJM7915FA -15V-REG
IC906 μPC2415HF +15V-REG
IC903 NJM78M05FA +5V-REG
IC904 NJM79M05FA -5V-REG
Q906 2SC3311 V.PROT1
Q907 2SC3311 V.PROT2
Q908 DTC144ES -12V-PROT
Q909 2SC3311 B-V BUFF
Q910 2SC3311 R-V BUFF
Q911 2SA1309 R-V BUFF
Q912 2SA1309 B-V BUFF
D1704 V06C R.PU
D1705 V06C G.PU
D1706 V06C B.PU
D1707 1SS119 V.PROT3
D1708 1SS119 RECT
D1709 1SS119 B.P2
D1710 1SS119 G.P2
D1711 1SS119 +12V-PROT
D1712 1SS119
D1720 RD2.0ESB1B1
D1721 RD2.0ESB1B1
L901 45μH
L902 45μH
L903 45μH
L904 45μH
F901 3.15A 250V
F902 3.15A 250V
WAVE-A
WAVE-U
V.M.PIN
B-1 7P WHT :S-MICRO
HR.OUT
VR.RET
VR.OUT
HR.RET
C.PROT
V.DEF.R
VR.DEF
TO ZR BOARD ZR-1
B-2 8P WHT :S-MICRO
HG.OUT
VG.RET
VG.OUT
HG.RET
C.PROT
V.DEF.R
VG.DEF
NC
TO ZG BOARD ZG-2
B-3 9P WHT :S-MICRO
HB.OUT
VB.RET
VB.OUT
HB.RET
C.PROT
V.DEF.R
VB.DEF
NC
NC
TO ZB BOARD ZB-3
B-4 5P WHT :S-MICRO
C.PROT
V.PROT
B-V
E
R-V
TO DD BOARD CN1303
D
REGISTRATION DEFLECTION V-OUT. SUB-OUT
B-SS336.<HK.>-0..
B-5 8P WHT :S-MICRO
H.PARA(-)
H.PARA(+)
V.PARA(+)
E
V.SAW(+)
H.SAW(+)
E
PROT
TO A BOARD CN1602
B-9 4P YEL :S-MICRO
-18V
E
E
+18V
B-7 4P RED :S-MICRO
-18V
E
E
+18V
TO G BOARD CN1653
V.BLK
H.BLK
+18V
E
-18V
HRC
HGC
HBC
PIN
TO DD BOARD CN1305
B-14 10P RED :S-MICRO
+18V
N.C
N.C
-18V
CN-8 4P


6
7
8
9
10
11
F901
F902
IC902
IC903
IC904
IC905
IC906
IC1706
IC1707
IC1708
IC1709
IC1710
CN-1
CN-3
CN-4
CN-5
CN-8
V/M.PIN
HR
HG
HB
VR
VG
VB
SUB BOW
SUB SKEW
PIN
BOW
KEYS
SKEW
LIN
SIZE
CENT
CAD
SONY
D

D Board

IC	
IC901	C-3
902	B-6
903	B-8
904	B-8
905	B-8
906	B-8
907	D-4
908	C-3
910	B-5
1701	A-1
1702	C-2
1703	E-1
1704	B-1
1705	E-1
1706	B-10
1707	D-10
1708	E-9
1709	E-10
1710	C-10
1714	B-3
1715	B-4
1718	A-3

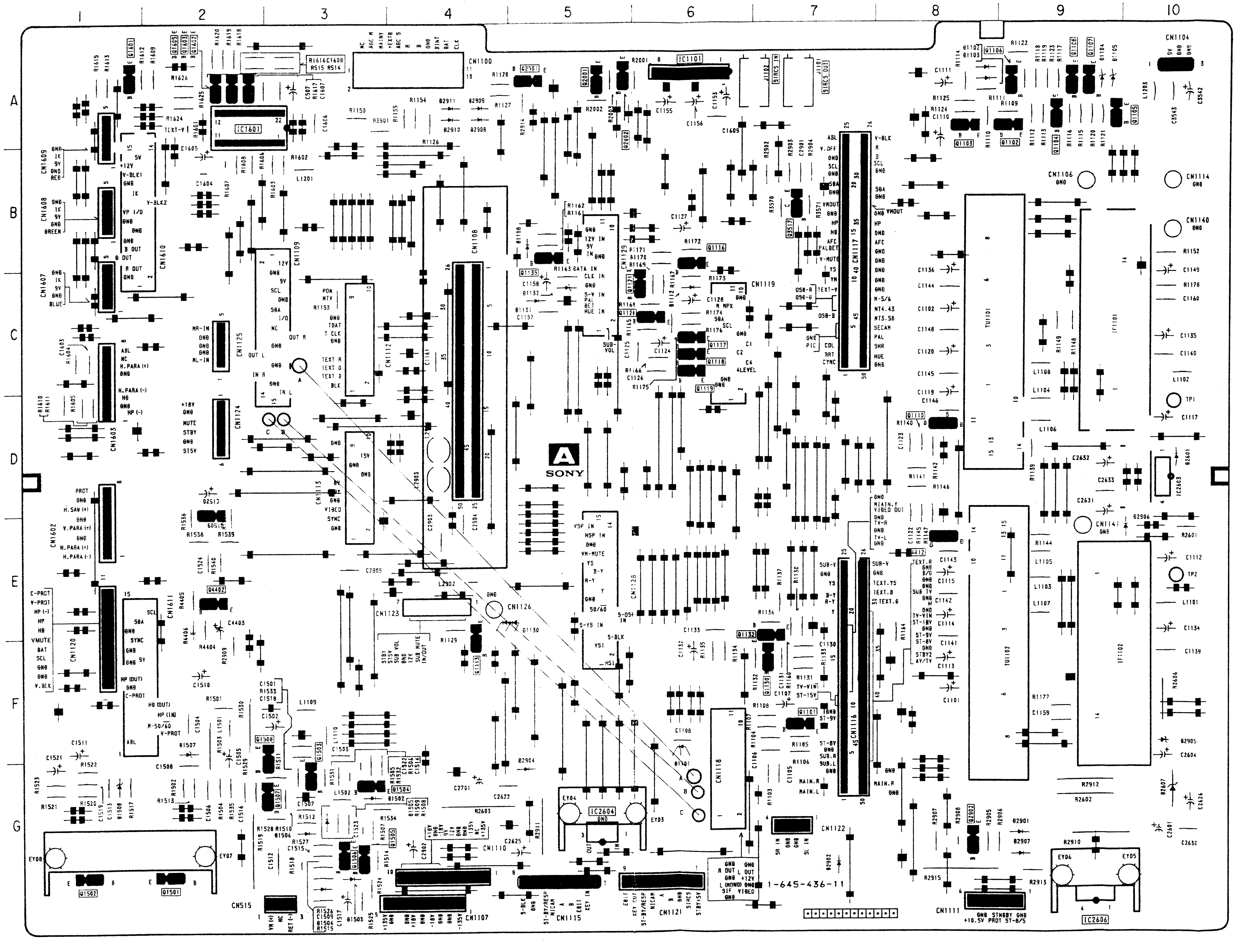
TRANSISTOR	
Q902	A-5
906	A-9
907	A-9
908	A-4
909	B-9
910	A-10
911	B-11
912	B-9

DIODE	
D901	A-6
902	A-6
1701	B-1
1702	C-5
1703	C-1
1704	B-10
1705	D-10
1706	E-10
1707	A-9
1708	A-9
1709	E-9
1710	C-10
1711	A-4
D1712	A-4
1713	C-5
1714	B-6
1715	B-6
1716	C-4
1717	C-4
1718	C-4
1720	B-4
1721	B-4
1722	A-4
1723	A-4

VARIARBLE RESISTOR	
RV901	C-9
902	D-8
903	D-8
904	E-8
905	E-8
906	E-8
907	C-8
908	D-8
909	D-8
910	E-8
911	E-8
912	E-8
913	E-8
914	D-8
915	C-8
916	D-8
917	E-8
918	E-8
919	C-7
920	D-7
921	D-7
922	E-7
923	E-7
924	E-7
925	D-7
926	C-7
927	D-7
928	E-7
929	E-7
930	E-7
931	C-7
932	D-7
933	D-7
934	E-7
935	E-7
936	E-7
937	E-6
938	E-6
939	E-6
RV940	C-6
941	D-6
942	D-6
943	C-6
944	D-6
945	D-6
946	E-6
947	E-6
948	E-6
949	C-6
950	D-6
951	D-6
952	E-6
953	E-6
954	E-6
956	C-5
957	D-5
958	D-5
959	C-4
960	E-5
961	E-4
962	E-4
963	C-5
964	D-5
965	D-5
966	E-5
967	E-5
968	C-5
969	D-5
970	D-5
971	E-5
972	E-5
973	E-4
974	E-4
975	E-4
976	E-4
977	E-3
978	E-3
979	E-3
980	E-3
981	E-3
982	D-3

A [TUNING, VM SHADING]

—A Board—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A
B
C
D
E
F
G
IC1101
IC1601
IC2604
IC2606
CN1100
CN1108
CN1109
CN1110
CN1111
CN1112
CN1113
CN1114
CN1115
CN1116
CN1117
CN1119
CN1120
CN1121
CN1122
CN1123
CN1124
CN1125
CN1126
CN1106
CN1140
CN1141
CN1602
CN1603
CN1607
CN1608
CN1609
CN1610
CN1611
CN515
TU1101
TU1102
IF1101
IF1102
EY03
EY04
EY05
EY06
EY07
EY08
TP1
TP2
A
SONY
1-645-436-11

A Board

IC

IC1101	A-6
1601	A-2
2603	D-10
2604	G-5
2606	H-9

TRANSISTOR

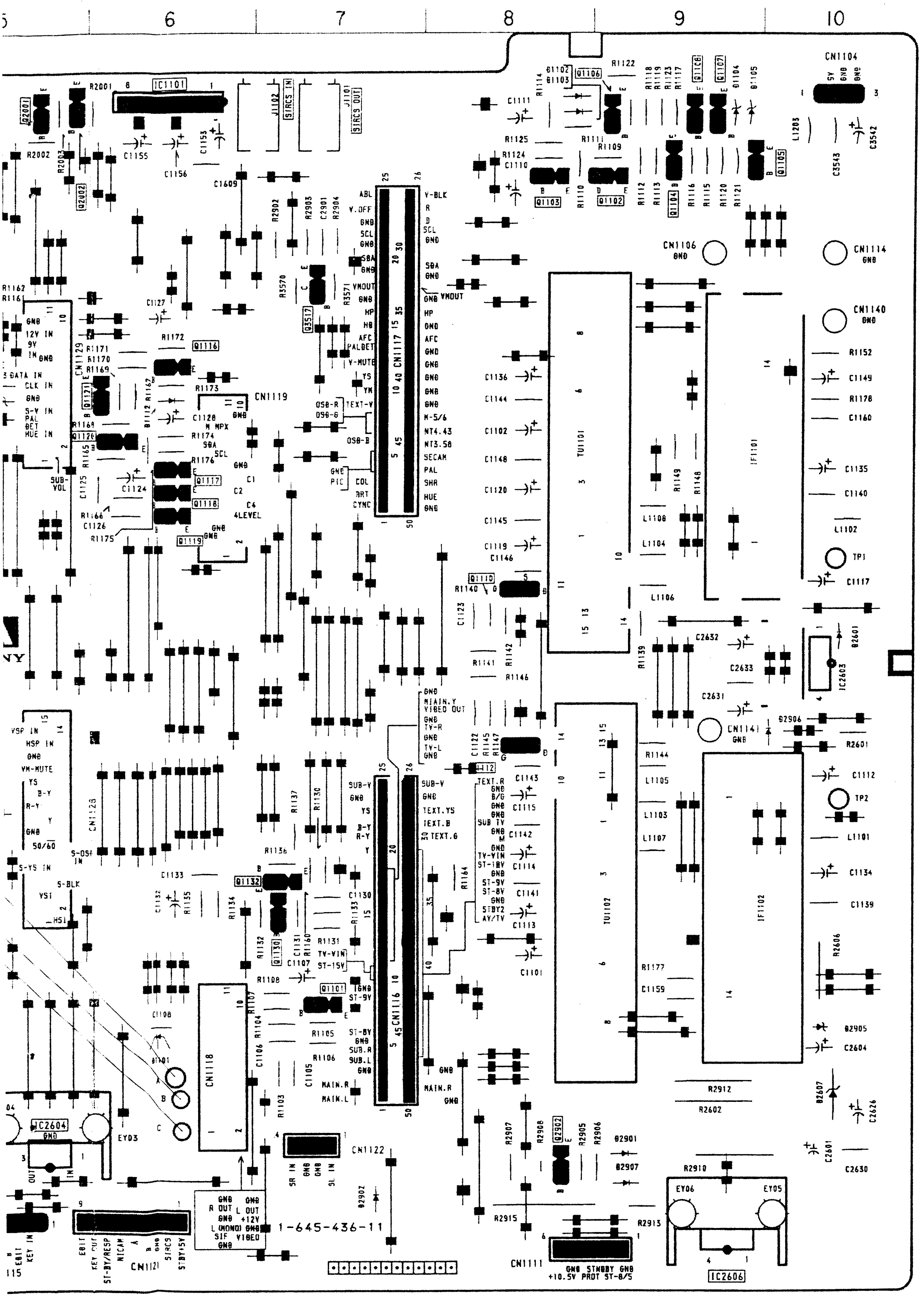
Q1101	E-7
1102	A-9
1103	A-8
1104	A-9
1105	A-9
1106	A-9
1107	A-9
1108	A-9
1110	D-8
1112	E-8
1113	F-4
1116	B-6
1117	C-6
1118	C-6
1119	C-6
1120	C-6
1121	C-6
1130	E-7
1132	E-7
1135	B-5
1501	G-2
1502	G-1
1503	G-3
1504	G-3
1505	G-3
1506	G-3
1507	G-3
1508	F-3
1601	A-1
1602	A-2
1603	A-2
1605	A-2
2001	A-5
2002	A-5
2901	A-5
2902	G-8
3517	B-7
4402	E-2

DIODE

D1101	F-6
1102	A-8
1103	A-8
1104	A-9
1105	A-9
1108	B-5
1112	C-6
1130	E-4
1131	C-5
1132	C-5
1502	G-3
1503	G-3
1504	G-3
1505	G-3
1506	G-3
1507	F-2
1508	G-1
2601	D-10
2607	G-10
2901	G-9
2902	G-7
2904	G-5
2906	E-10
2907	G-9
2908	A-4
2909	A-4
2910	A-4
2911	A-4

TP

TP1	D-10
2	E-10


6
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CN1104
IC1101
CN1106
CN1114
CN1140
CN1119
CN1117
CN1116
CN1118
CN1122
CN1141
CN1111
TU1101
TU1102
IF1101
IF1102
TP1
TP2
IC2604
IC2606
EY05
EY06
1-645-436-11

A Board

IC	
IC1101	A-6
1601	A-2
2603	Ð-10
2604	G-5
2606	H-9

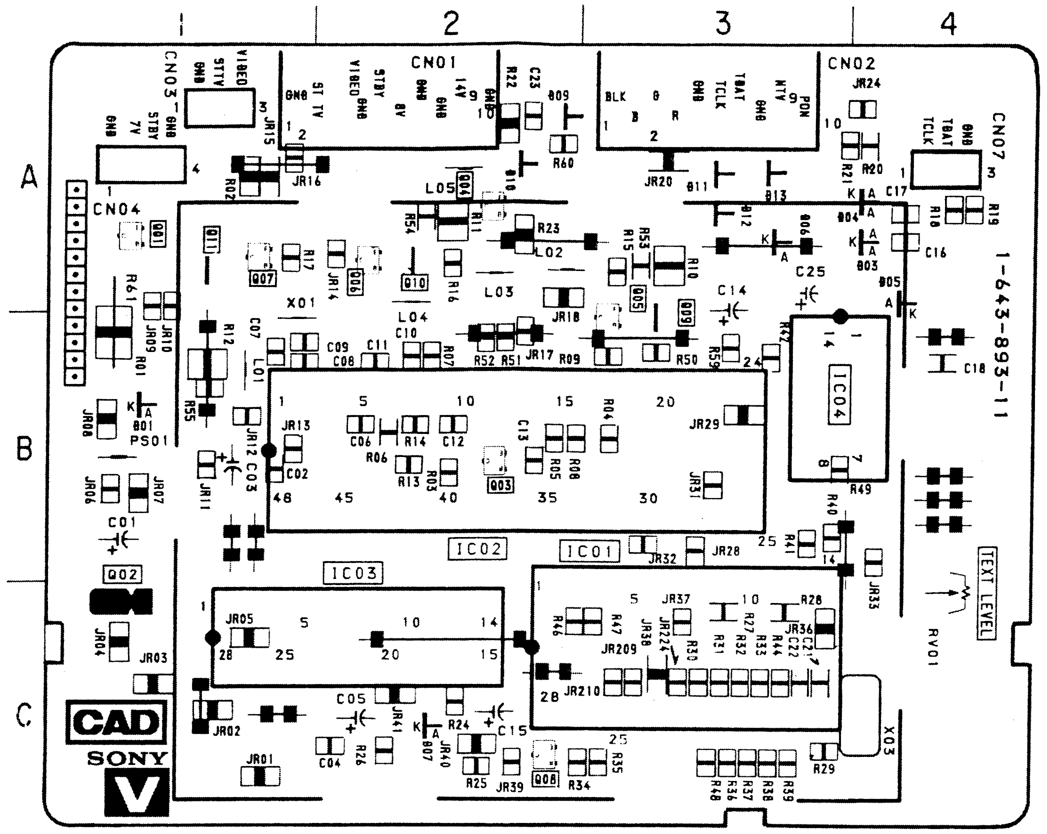
TRANSISTOR	
Q1101	E-7
1102	A-9
1103	A-8
1104	A-9
1105	A-9
1106	A-9
1107	A-9
1108	A-9
1110	Ð-8
1112	E-8
1113	F-4
1116	B-6
1117	C-6
1118	C-6
1119	C-6
1120	C-6
1121	C-6
1130	E-7
1132	E-7
1135	B-5
1501	G-2
1502	G-1
1503	G-3
1504	G-3
1505	G-3
1506	G-3
1507	G-3
1508	F-3
1601	A-1
1602	A-2
1603	A-2
1605	A-2
2001	A-5
2002	A-5
2901	A-5
2902	G-8
3517	B-7
4402	E-2

ÐIOÐE	
Ð1101	F-6
1102	A-8
1103	A-8
1104	A-9
1105	A-9
1108	B-5
1112	C-6
1130	E-4
1131	C-5
1132	C-5
1502	G-3
1503	G-3
1504	G-3
1505	G-3
1506	G-3
1507	F-2
1508	G-1
2601	Ð-10
2607	G-10
2901	G-9
2902	G-7
2904	G-5
2906	E-10
2907	G-9
2908	A-4
2909	A-4
2910	A-4
2911	A-4

TP	
TP1	Ð-10
2	E-10

V [TELETEXT]

—V Board—


1
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A
B
C
CN01
CN02
CN03
CN04
CN07
IC01
IC02
IC03
IC04
X01
X03
RV01
TEXT LEVEL
CAD
SONY
V
1-643-893-11

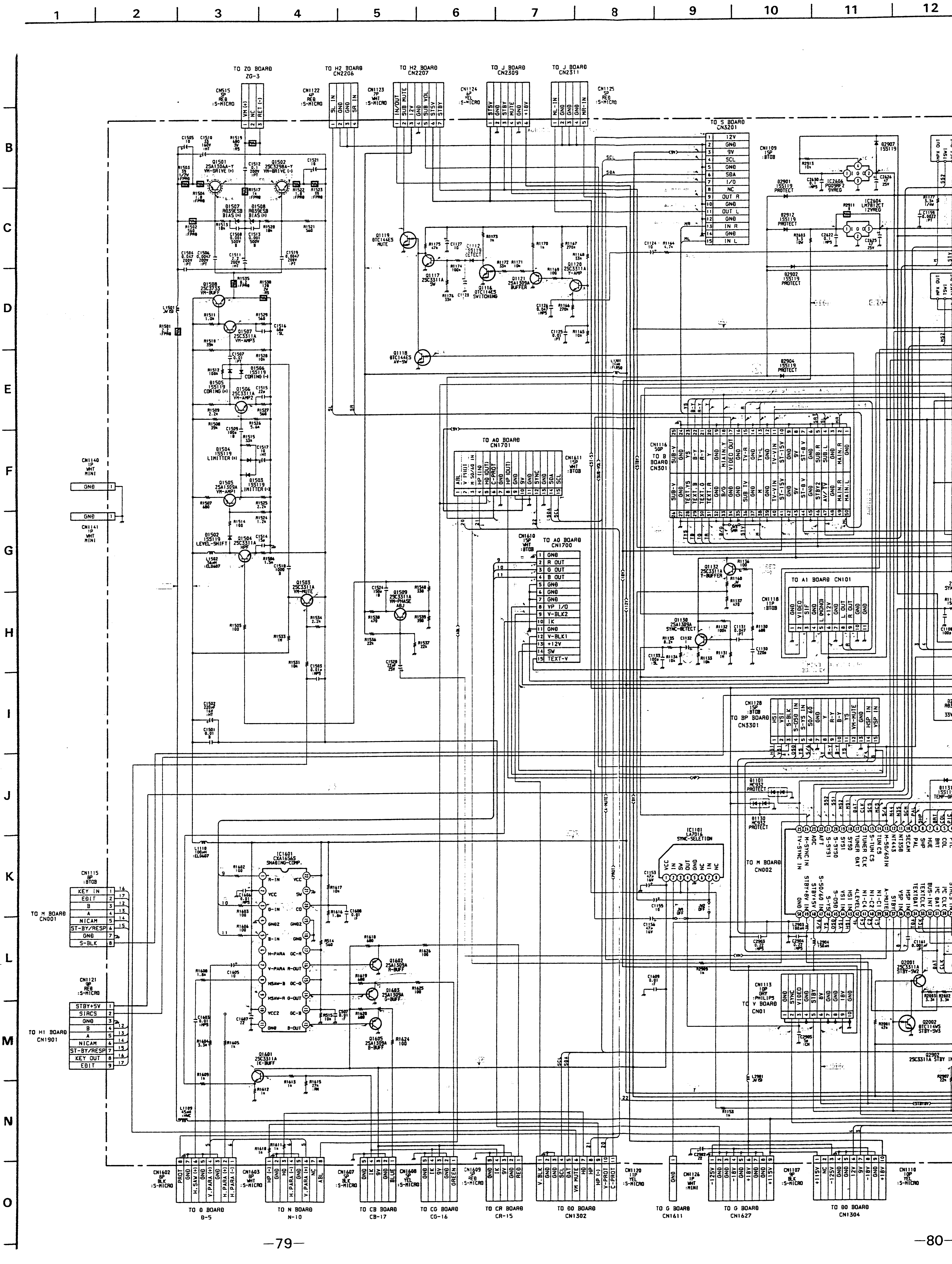
V Board

IC	
IC01	C-3
02	B-2
03	C-2
04	B-3

TRANSISTOR	
Q01	A-1
02	C-1
03	B-2
04	A-2
05	B-3
06	A-2
07	A-1
08	C-2

ÐIOÐE	
Ð01	B-1
03	A-4
04	A-4
05	A-4
06	A-3
07	C-2
14	
15	

VARIARBLE RESISTOR	
RV01	C-4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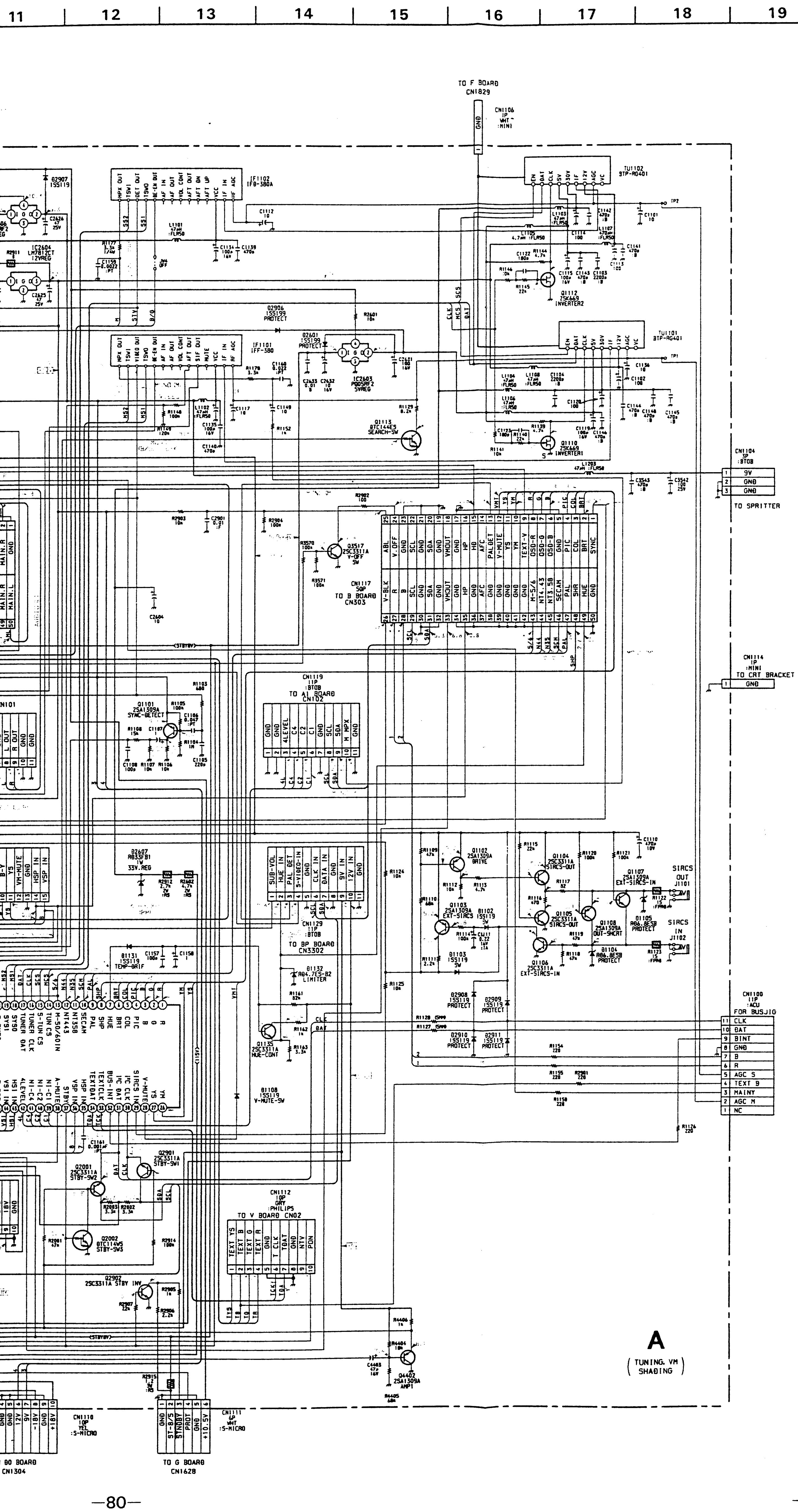
12
B
C
D
E
F
G
H
I
J
K
L
M
N
O
TO ZO BOARD ZG-3
CN515 5P RED :S-MICRO
VM (+)
NC
RET (-)
TO H2 BOARD CN2206
CN1122 6P RED :S-MICRO
SL IN
GND
SR IN
TO H2 BOARD CN2207
CN1123 7P WHT :S-MICRO
IN/OUT
SUB MUTE
12V
GND
SUB VOL
ST5V
STBY
TO J BOARD CN2309
CN1124 6P YEL :S-MICRO
ST5V
GND
STBY
MUTE
GND
+18V
TO J BOARD CN2311
CN1125 5P RED :S-MICRO
ML-IN
GND
GND
GND
MR-IN
TO S BOARD CN3201
CN1109 15P :BTOB
12V
GND
9V
SCL
GND
SDA
I/O
NC
OUT R
GND
OUT L
GND
IN R
GND
IN L
Q1501 2SA1306A-Y VM-DRIVE (+)
Q1502 2SC3298A-Y VM-DRIVE (-)
D1507 RD39ESB BIAS (+)
D1508 RD39ESB BIAS (+)
Q1508 2SC3753 VM-BUFF
Q1507 2SC3311A VM-AMP3
D1504 1SS119 CORING (-)
D1505 1SS119 CORING (+)
Q1506 2SC3311A VM-AMP2
D1504 1SS119 LIMITTER (+)
Q1505 2SA1309A VM-AMP1
D1503 1SS119 LIMITTER (-)
D1502 1SS119 LEVEL-SHIFT
Q1504 2SC3311A HPF
Q1503 2SC3311A VM-MUTE
Q1509 2SC3311A VM-PHASE ADJ
Q1119 DTC144ES MUTE
Q1117 2SC3311A SW
D1112 1SS119 DETECT
Q1116 DTC144ES SWITCHING
Q1121 2SA1309A BUFFER
Q1120 2SC3311A Y-AMP
Q1118 DTC144ES AV-SW
D2907 1SS119
IC2606 PQ09RF2 9VREG
D2901 1SS119 PROTECT
IC2604 LM7812CT 12VREG
D2912 1SS119 PROTECT
D2902 1SS119 PROTECT
D2904 1SS119 PROTECT
CN1140 1P WHT MINI
GND
CN1141 1P WHT MINI
GND
TO A0 BOARD CN1701
ABL
V PROT
H 50/60 IN
HP IN
HD (OUT)
C-PROT
GND
HP (OUT)
GND
9V
GND
SYNC
GND
SDA
SCL
CN1611 15P WHT :BTOB
CN1116 50P
TO B BOARD CN301
SUB-V
YS
B-Y
R-Y
GND
MIAN.Y
VIDEO OUT
TV-R
GND
TV-L
ST-15V
GND
ST-B V
SUB.R
GND
MAIN.R
GND
SUB-V
TEXT.YS
TEXT.B
TEXT.R
B/G
GND
SUB TV
GND
TV-VIN
ST-15V
ST-B V
9V
STBY2
AV/TV
GND
MAIN.L
CN1610 15P WHT :BTOB
TO A0 BOARD CN1700
GND
R OUT
G OUT
B OUT
GND
GND
GND
VP I/O
V-BLK2
IK
GND
V-BLK1
+12V
SW
TEXT-V
Q1132 2SC3311A T-BUFFER
Q1130 2SA1309A SYNC-DETECT
TO A1 BOARD CN101
CN1118 11P :BTOB
GND
VIDEO
SIF
L GND
+12V
GND
L OUT
R OUT
GND
CN1128 15P :BTOB
TO BP BOARD CN3301
HS1
VS1
S-BLK
S-DSO IN
S-YS IN
50/60
GND
R-Y
B-Y
YS
VM-MUTE
GND
HSP IN
VSP IN
D1101 MC932 PROTECT
D1130 MC932 PROTECT
IC1101 LA7016 SYNC-SELECTION
VCC
IN
SW
OUT
GND
NC
IN
NC
TO M BOARD CN002
CN1115 8P :BTOB
TO M BOARD CN001
KEY IN
EDIT
B
A
NICAM
ST-BY/RESP
GND
S-BLK
IC1601 CXA1656S SHADING-COMP.
R-IN
VCC
G-IN
GND2
B-IN
H-PARA
V-PARA
HSAW-B
HSAW-R
VCC2
GND
GC-R
R-OUT
GC-G
G-OUT
GC-B
B-OUT
Q1602 2SA1309A R-BUFF
Q1603 2SA1309A G-BUFF
Q1605 2SA1309A B-BUFF
Q1601 2SC3311A IK-BUFF
CN1121 9P RED :S-MICRO
TO H1 BOARD CN1901
STBY+5V
SIRCS
GND
B
A
NICAM
ST-BY/RESP
KEY OUT
EDIT
CN1113 10P GRY :PHILIPS
TO V BOARD CN01
GND
SYNC
VIDEO
GND
STBY
8V
GND
18V
GND
GND
Q2001 2SC3311A STBY-SW2
Q2002 DTC114WS STBY-SW3
Q2902 2SC3311A STBY IN
CN1602 8P BLK :S-MICRO
PROT
GND
H.SAW (+)
V.PARA (+)
GND
H.PARA (+)
H.PARA (-)
TO D BOARD D-5
CN1603 8P WHT :S-MICRO
HP (+)
GND
H.PARA
GND
V.PARA (+)
NC
ABL
TO N BOARD N-10
CN1607 5P BLK :S-MICRO
GND
IK
9V
BLUE
TO CB BOARD CB-17
CN1608 5P YEL :S-MICRO
GND
IK
9V
GREEN
TO CG BOARD CG-16
CN1609 5P RED :S-MICRO
GND
IK
9V
RED
TO CR BOARD CR-15
V.BLK
GND
SCL
DAT
VM MUTE
HD
HP (-)
GND
V-PROT
C-PROT
CN1120 11P YEL :S-MICRO
TO DD BOARD CN1302
GND
CN1126 1P WHT MINI
TO G BOARD CN1611
-125V
GND
GND
-18V
+18V
GND
GND
+115V
TO G BOARD CN1627
CN1107 9P BLK :S-MICRO
+115V
NC
-125V
GND
12V
9V
-18V
GND
+18V
TO DD BOARD CN1304
CN1110 10P YEL :S-MICRO


11
12
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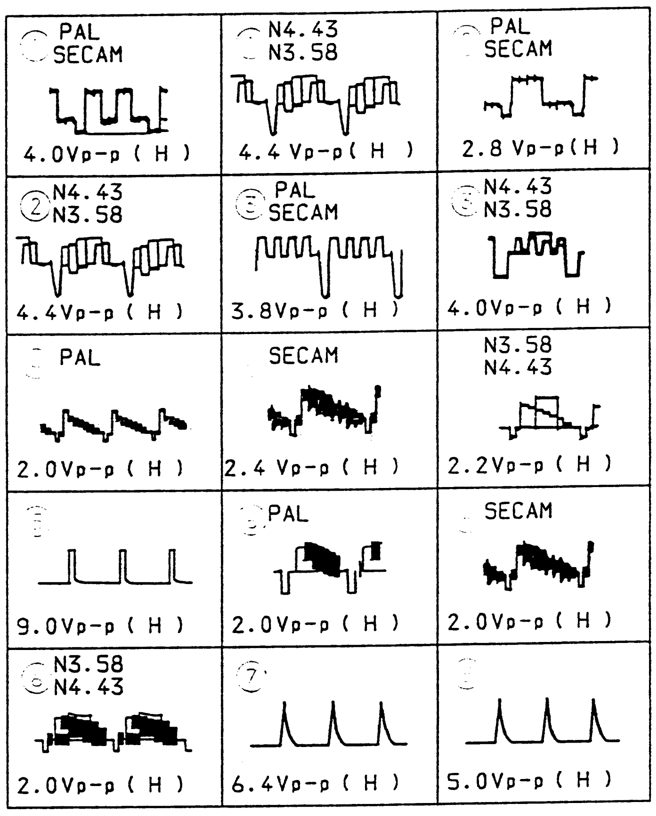
20
21
22
23
TO F BOARD CN1829
CN1106 1P WHT :MINI
GND
IF1102 IFB-380A
IF1101 IFF-380
TU1102 BTP-RG401
TU1101 BTP-RG401
IC2604 LM7812CT 12VREG
IC2603 PQ05RF2 5VREG
D2906 1SS199 PROTECT
D2601 1SS199 PROTECT
Q1113 DTC144ES SEARCH-SW
Q1112 2SK669 INVERTER2
Q1110 2SK669 INVERTER1
CN1104 3P :BTOB
9V
GND
GND
TO SPRITTER
Q3517 2SC3311A V-OFF SW
CN1117 50P TO B BOARD CN303
ABL
V-OFF
GND
SCL
GND
SDA
GND
VMOUT
GND
HP
HD
AFC
PAL.DET
V-MUTE
YS
YM
TEXT-V
OSD-R
OSD-G
OSD-B
GND
PIC
COL
BRT
SYNC
V-BLK
N3.58
N4.43
SECAM
PAL
SHP
HUE
CN1114 1P :MINI TO CRT BRACKET
GND
Q1101 2SA1309A SYNC-DETECT
CN1119 11P :BTOB TO A1 BOARD CN102
4LEVEL
C4
C2
C1
SCL
SDA
H HPX
D2607 RD33FB1 1W 33V.REG
SUB-VOL
HUE IN
PAL DET
S-VIDEO-IN
CLK IN
DATA IN
9V IN
12V IN
CN1129 11P :BTOB TO BP BOARD CN3302
D1132 1SS119 TEMP-GRIF
D1134 RD4.7ES-B2 LIMITER
Q1135 2SC3311A HUE-CONT
D1108 1SS119 V-MUTE-SW
Q1102 2SA1309A BRIYE
Q1103 2SA1309A EXT-SIRCS
Q1104 2SC3311A SIRCS-OUT
Q1105 2SC3311A SIRCS-OUT
Q1106 2SC3311A EXT-SIRCS-IN
Q1107 2SA1309A EXT-SIRCS-IN
Q1108 2SA1309A OUT-SHCRT
D1102 1SS119 5V
D1104 RD6.8ESB PROTECT
D1105 RD6.8ESB PROTECT
D2908 1SS119 PROTECT
D2909 1SS119 PROTECT
D2910 1SS119 PROTECT
D2911 1SS119 PROTECT
SIRCS OUT J1101
SIRCS IN J1102
CN1100 11P :ACU FOR BUSJIG
CLK
DAT
BINT
GND
B
G
R
AGC S
TEXT B
MAINY
AGC M
NC
Q2001 2SC3311A STBY-SW2
Q2901 2SC3311A STBY-SW1
Q2002 DTC114ES STBY-SW3
Q2902 2SC3311A STBY INV
CN1112 10P GRY :PHILIPS TO V BOARD CN02
TEXT YS
TEXT B
TEXT G
TEXT R
GND
T CLK
TDAT
GND
NTV
PON
Q4402 2SA1309A AMP1
CN1110 10P YEL :S-MICRO
TO BO BOARD CN1304
CN1111 6P WHT :S-MICRO
TO G BOARD CN1628
GND
ST-BY5V
STNDBY
PROT
GND
+10.5V
A
(TUNING, VM SHADING)

A Board Waveforms


PAL
SECAM
4.0Vp-p (H)
N4.43
N3.58
4.4 Vp-p (H)
PAL
SECAM
2.8 Vp-p(H)
② N4.43
N3.58
4.4Vp-p (H)
PAL
SECAM
3.8Vp-p (H)
N4.43
N3.58
4.0Vp-p (H)
PAL
2.0Vp-p (H)
SECAM
2.4 Vp-p (H)
N3.58
N4.43
2.2Vp-p (H)
9.0Vp-p (H)
PAL
2.0Vp-p (H)
SECAM
2.0Vp-p (H)
N3.58
N4.43
2.0Vp-p (H)
⑦
6.4Vp-p (H)
5.0Vp-p (H)

A Board

As to the voltage value shown by the mark ※ on the Schematic Diagram see the another list.

		PAL	SEC[illegible]	[illegible]	[illegible]
Q1106	[illegible]	5.1	5	[illegible]	[illegible]
[illegible]	[illegible]	4.8	5	[illegible]	[illegible]
[illegible]	[illegible]	6.3	[illegible]	[illegible]	[illegible]
	[illegible]	5.6	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	3.2		[illegible]	
	[illegible]	2.[illegible]			
	[illegible]	0		5.0	
	[illegible]	0	5.[illegible]	5.1	
	⑲	0	5.1	5.1	[illegible]
	[illegible]	0	5.1	5.1	[illegible]
	[illegible]	2.3	2.3	3.[illegible]	2.3
CN1109	③	2.7	2.3	2.3	
	[illegible]	[illegible]	2.3	[illegible]	
[illegible]	④	[illegible].6	[illegible]	[illegible]	
	⑤	[illegible]	[illegible]	[illegible]	
	[illegible]	3.9	[illegible]	[illegible]	
	[illegible]	[illegible]			
	[illegible]	[illegible]			
	[illegible]	3.6			
	[illegible]	[illegible]			
	[illegible]	[illegible]			
	[illegible]	[illegible]			
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[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
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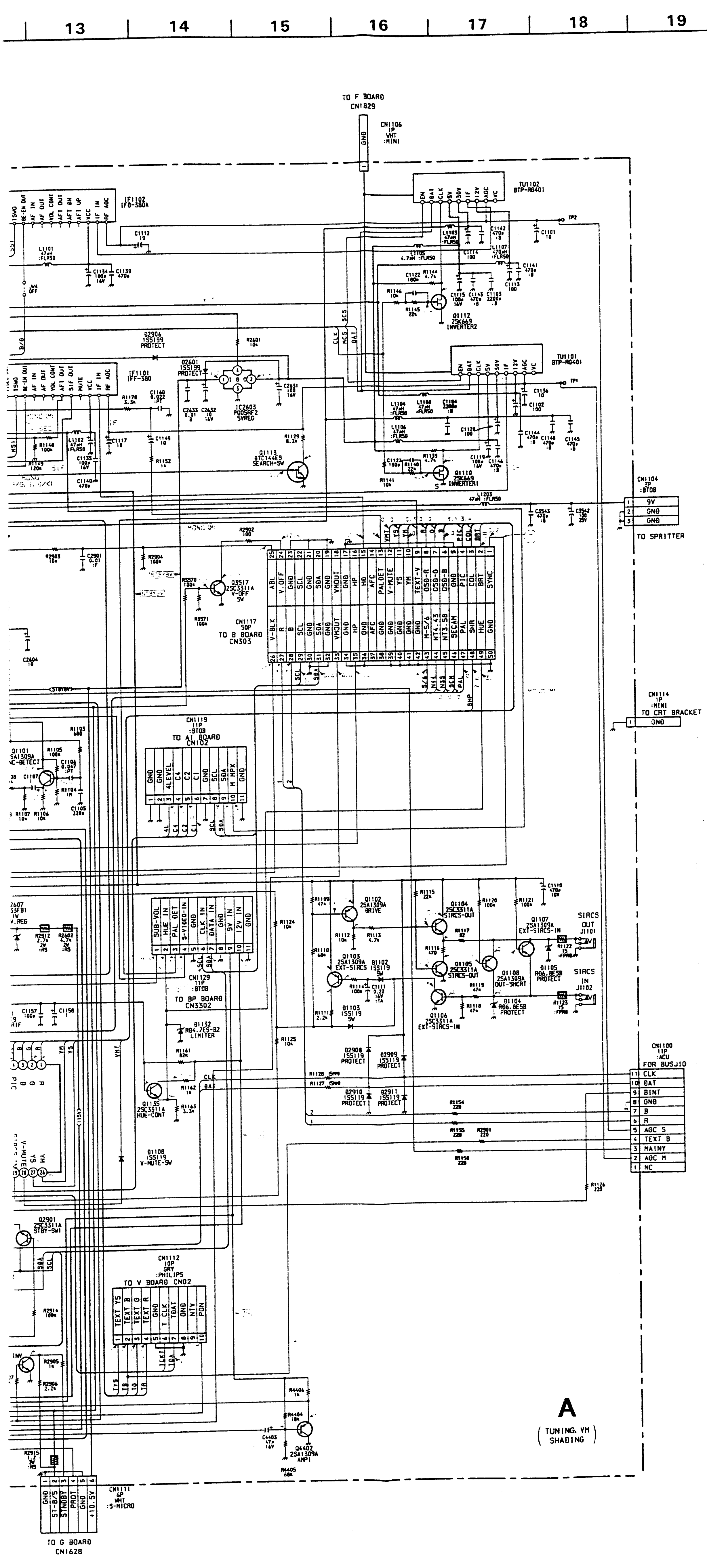
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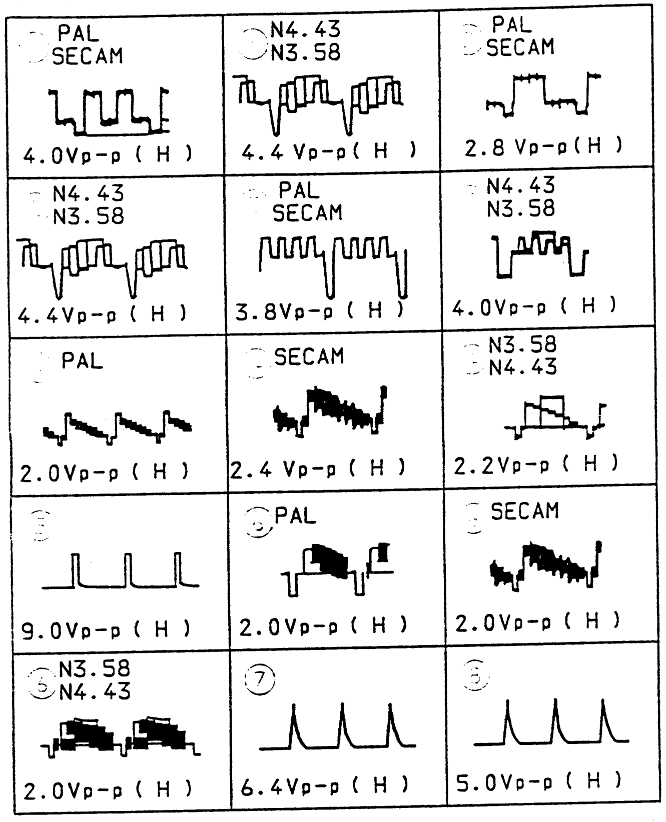
22
23
24
TO F BOARD CN1829
CN1106 1P WHT :MINI
TU1102 BTP-RG401
TU1101 BTP-RG401
IF1102 IFB-380A
IF1101 IFF-380
Q1112 2SK669 INVERTER2
Q1110 2SK669 INVERTER1
D2906 1SS119 PROTECT
D2601 1SS119 PROTECT
IC2603 PQ05RF2 5VREG
Q1113 DTC144ES SEARCH-SW
CN1104 3P :BTOB
9V
GND
GND
TO SPRITTER
Q3517 2SC3311A V-OFF SW
CN1117 50P TO B BOARD CN303
CN1114 1P :MINI TO CRT BRACKET
GND
CN1119 11P :BTOB TO A1 BOARD CN102
Q1101 2SA1309A AC-DETECT
Q1102 2SA1309A BRIVE
Q1103 2SA1309A EXT-SIRCS
Q1104 2SC3311A SIRCS-OUT
Q1105 2SC3311A SIRCS-OUT
Q1106 2SC3311A EXT-SIRCS-IN
Q1107 2SA1309A EXT-SIRCS-IN
Q1108 2SA1309A OUT-SHCRT
SIRCS OUT J1101
SIRCS IN J1102
CN1129 11P :BTOB TO BP BOARD CN3302
D1132 RD4.7ES-B2 LIMITER
Q1135 2SC3311A HUE-CONT
D1108 1SS119 V-MUTE-SW
CN1100 11P :ACU FOR BUSJIG
CLK
DAT
BINT
GND
B
R
AGC S
TEXT B
MAINY
AGC M
NC
Q2901 2SC3311A STBY-SW1
CN1112 10P GRY :PHILIPS TO V BOARD CN002
Q4402 2SA1309A AMP1
A
TUNING, VM SHADING
CN1111 6P WHT :S-MICRO
TO G BOARD CN1628

A Board Waveforms

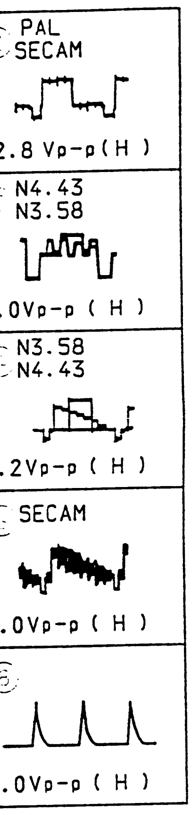


A Board

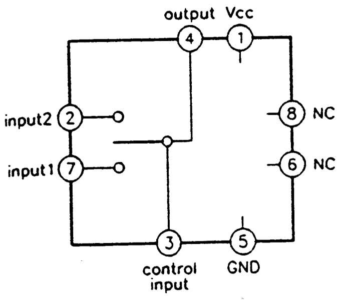
As to the voltage Volue shown by the mark ※ on the Schematic Diagram see the another list.

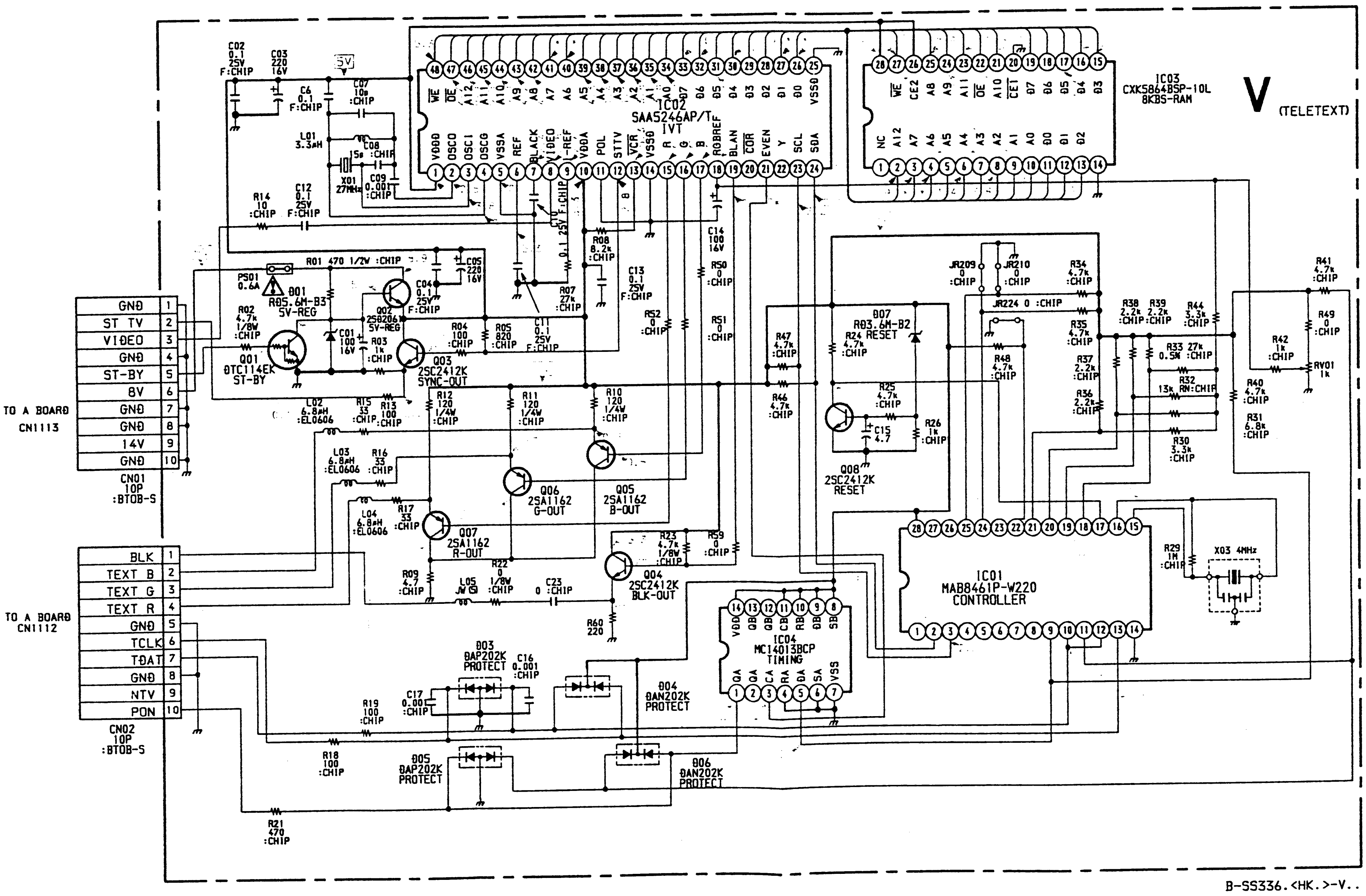
		PAL	SECAM	NTSC 4.43	NTSC 3.58
Q1106	[illegible]	5.1	5.5	[illegible]	[illegible]
[illegible]	[illegible]	4.8	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	0	5.1	[illegible]	
	[illegible]	0	5.1	5.	
	[illegible]	0	5.1	[illegible]	
	[illegible]	2.3	2.3	3.	
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
	[illegible]	[illegible]	[illegible]	[illegible]	
[illegible]	[illegible]	[illegible]			
	⑤	[illegible]		[illegible]	
	[illegible]	[illegible]			
	[illegible]	[illegible]			
	[illegible]	[illegible]			
	[illegible]	3.6			

A· Boa
input2 ②
input1 ⑦
TO A B CN1
TO A E CN11



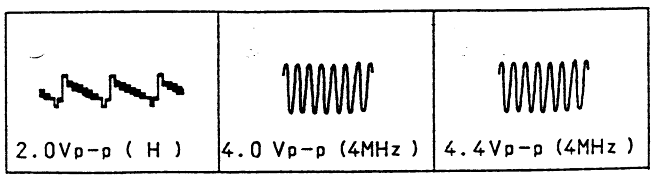
A· Board IC1101 LA7016


output
Vcc
4
1
input2
2
input1
7
8
NC
6
NC
3
5
control input
GND

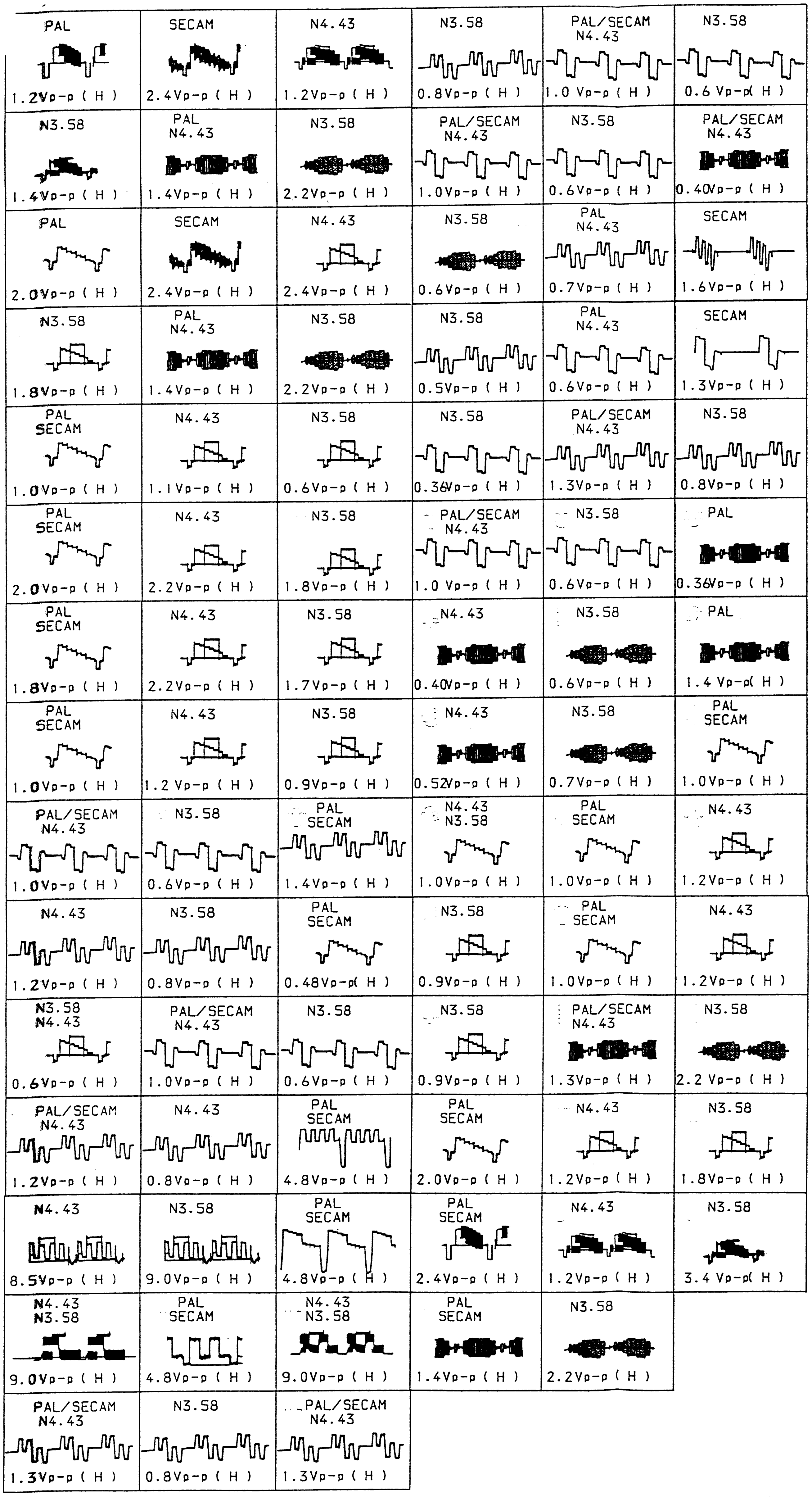

V (TELETEXT)
IC02
SAA5246AP/T
IVT
IC03
CXK5864BSP-10L
8KBS-RAM
IC01
MAB8461P-W220
CONTROLLER
IC04
MC14013BCP
TIMING
X01 27MHz
X03 4MHz
Q01 DTC114EK ST-BY
Q02 2SB1206 5V-REG
Q03 2SC2412K SYNC-OUT
Q04 2SC2412K BLK-OUT
Q05 2SA1162 B-OUT
Q06 2SA1162 G-OUT
Q07 2SA1162 R-OUT
Q08 2SC2412K RESET
D01 RD5.6M-B3 5V-REG
D03 DAP202K PROTECT
D04 DAN202K PROTECT
D05 DAP202K PROTECT
D06 DAN202K PROTECT
D07 RD3.6M-B2 RESET
PS01 0.6A
RV01 1k
5V
TO A BOARD CN1113
GND 1
ST TV 2
VIDEO 3
GND 4
ST-BY 5
8V 6
GND 7
GND 8
14V 9
GND 10
CN01 10P :BTOB-S
TO A BOARD CN1112
BLK 1
TEXT B 2
TEXT G 3
TEXT R 4
GND 5
TCLK 6
TDAT 7
GND 8
NTV 9
PON 10
CN02 10P :BTOB-S

B-SS336.<HK.>-V..

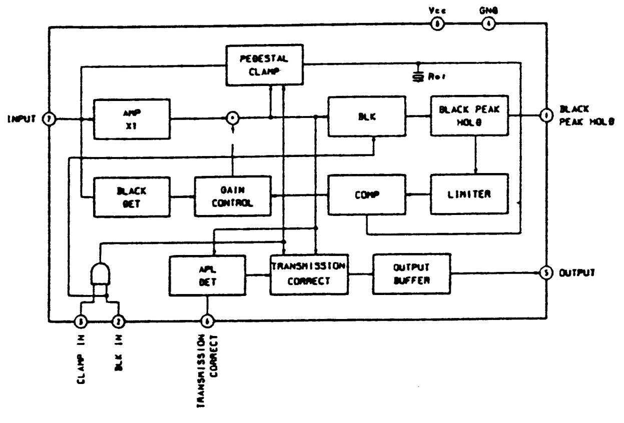
V Board Waveforms



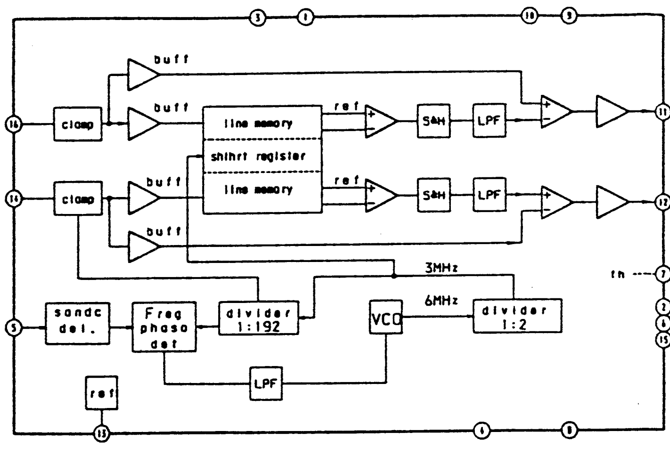
Board Waveforms



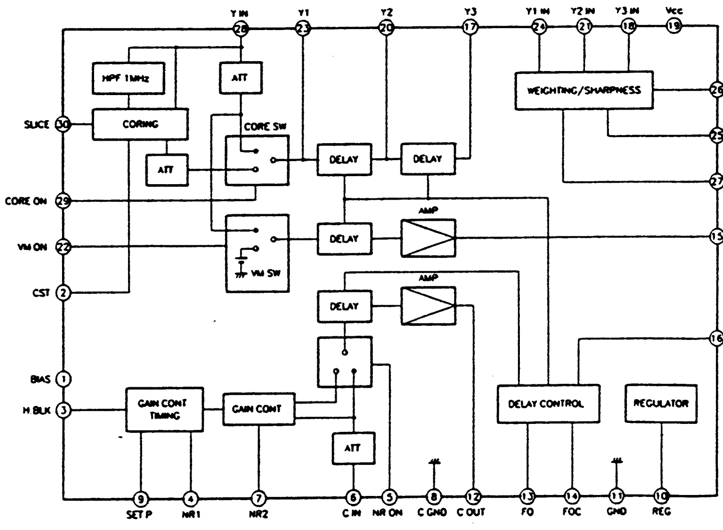
B Board IC305 CX20125


Vcc
GND
PEDESTAL CLAMP
Ref
AMP X1
BLK
BLACK PEAK HOLD
BLACK SET
GAIN CONTROL
COMP
LIMITER
APL SET
TRANSMISSION CORRECT
OUTPUT BUFFER
INPUT
BLACK PEAK HOLD
OUTPUT
CLAMP IN
BLK IN
TRANSMISSION CORRECT

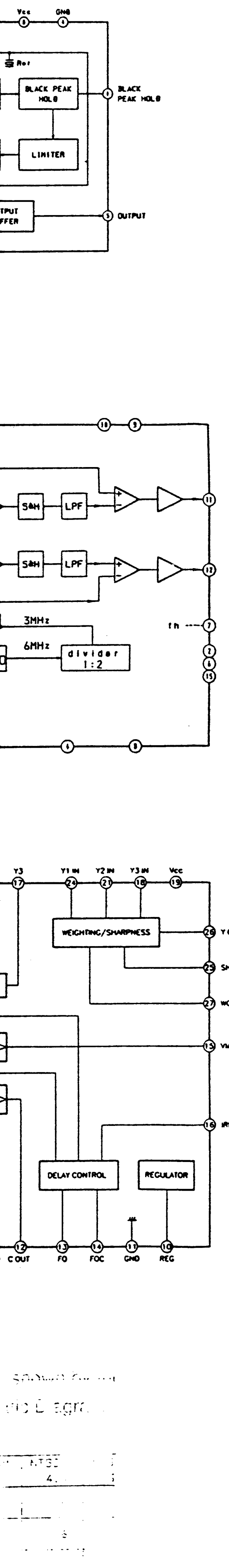
B Board IC316 TDA4660-V2

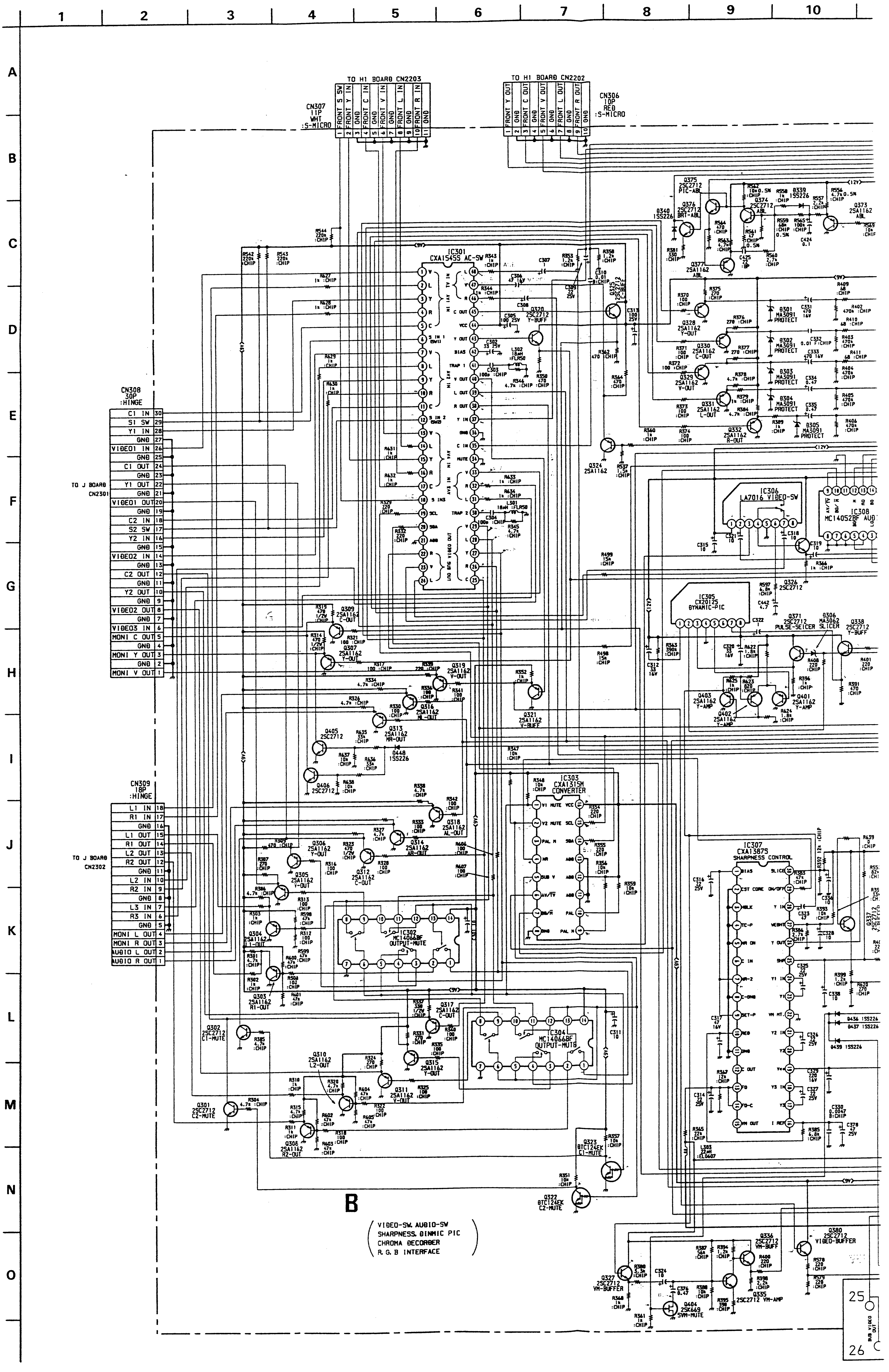

buff
clamp
line memory
shihrt register
ref
S&H
LPF
3MHz
6MHz
sandc del.
Freq phase det
divider 1:192
VCO
divider 1:2
ref
LPF
fh

B Board IC307 CXA1387S


Y IN
Y1
Y2
Y3
Y1 IN
Y2 IN
Y3 IN
Vcc
HPF 1MHz
ATT
CORING
CORE SW
DELAY
WEIGHTING/SHARPNESS
AMP
VM SW
GAIN CONT TIMING
GAIN CONT
DELAY CONTROL
REGULATOR
SLICE
CORE ON
VM ON
CST
BIAS
H BLK
SET P
NR1
NR2
C IN
NR ON
C GND
C OUT
FO
FOC
GND
REG

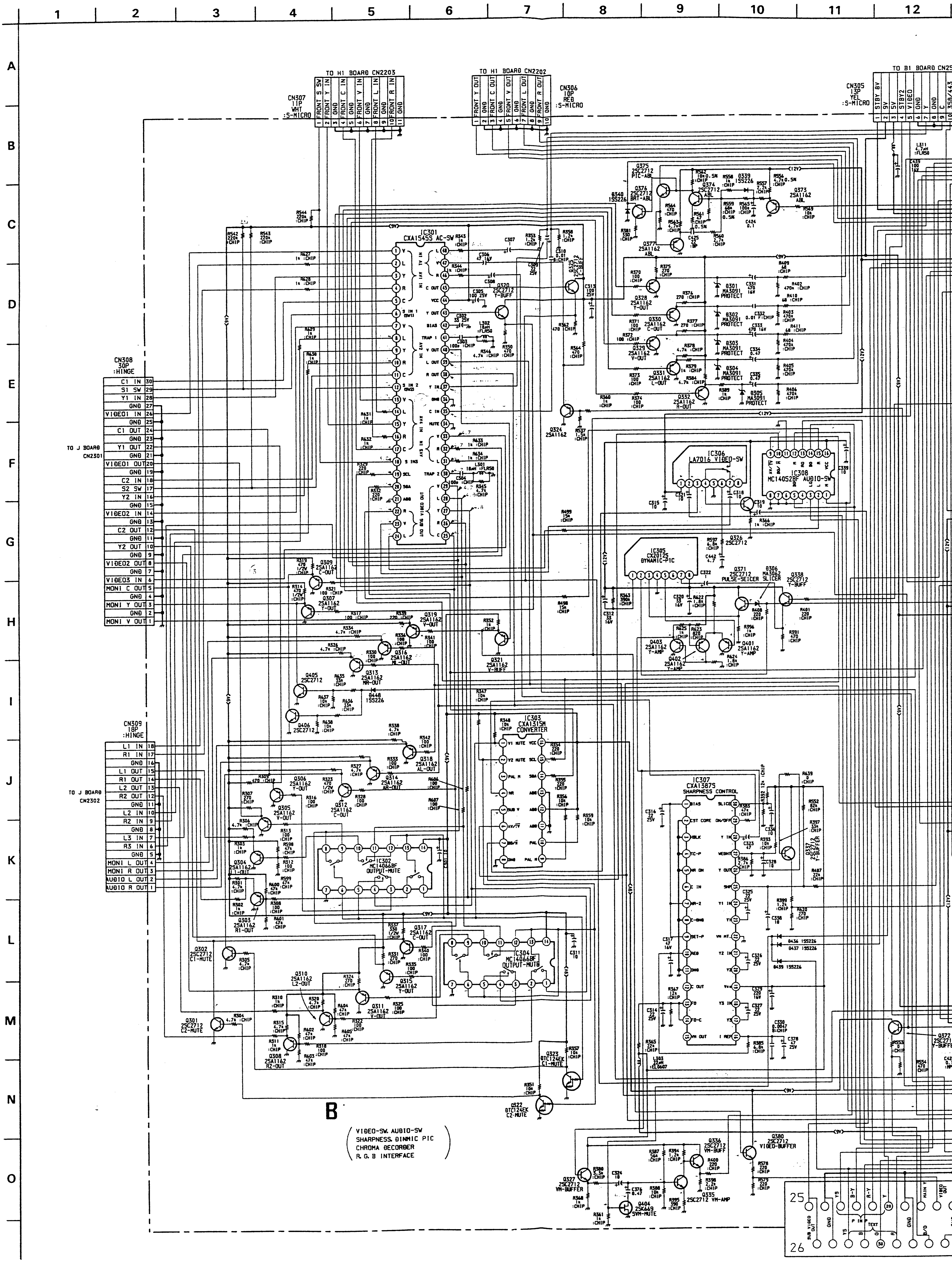
B Board


BLACK PEAK HOLD
LIMITER
OUTPUT
S&H
LPF
3MHz
6MHz
divider 1:2
WEIGHTING/SHARPNESS
Y OUT
SHP
WGT
VM OUT
IREF
DELAY CONTROL
REGULATOR


TO H1 BOARD CN2203
CN307 11P WHT :S-MICRO
TO H1 BOARD CN2202
CN306 10P RED :S-MICRO
IC301 CXA1545S AC-SW
IC303 CXA1315M CONVERTER
IC302 MC14066BF OUTPUT-MUTE
IC304 MC14066BF OUTPUT-MUTE
IC305 CX20125 DYNAMIC-PIC
IC306 LA7016 VIDEO-SW
IC307 CXA1387S SHARPNESS CONTROL
IC308 MC14052BF AUDIO
CN308 30P :HINGE
TO J BOARD CN2301
CN309 18P :HINGE
TO J BOARD CN2302
Q301 2SC2712 C2-MUTE
Q302 2SC2712 C1-MUTE
Q322 DTC124EK C2-MUTE
Q323 DTC124EK C1-MUTE
Q327 2SC2712 VM-BUFFER
Q335 2SC2712 VM-AMP
Q336 2SC2712 VM-BUFF
Q380 2SC2712 VIDEO-BUFFER
Q404 2SK669 SVM-MUTE

B

VIDEO-SW, AUDIO-SW
SHARPNESS, DINMIC PIC
CHROMA DECORDER
R.G.B INTERFACE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A
B
C
D
E
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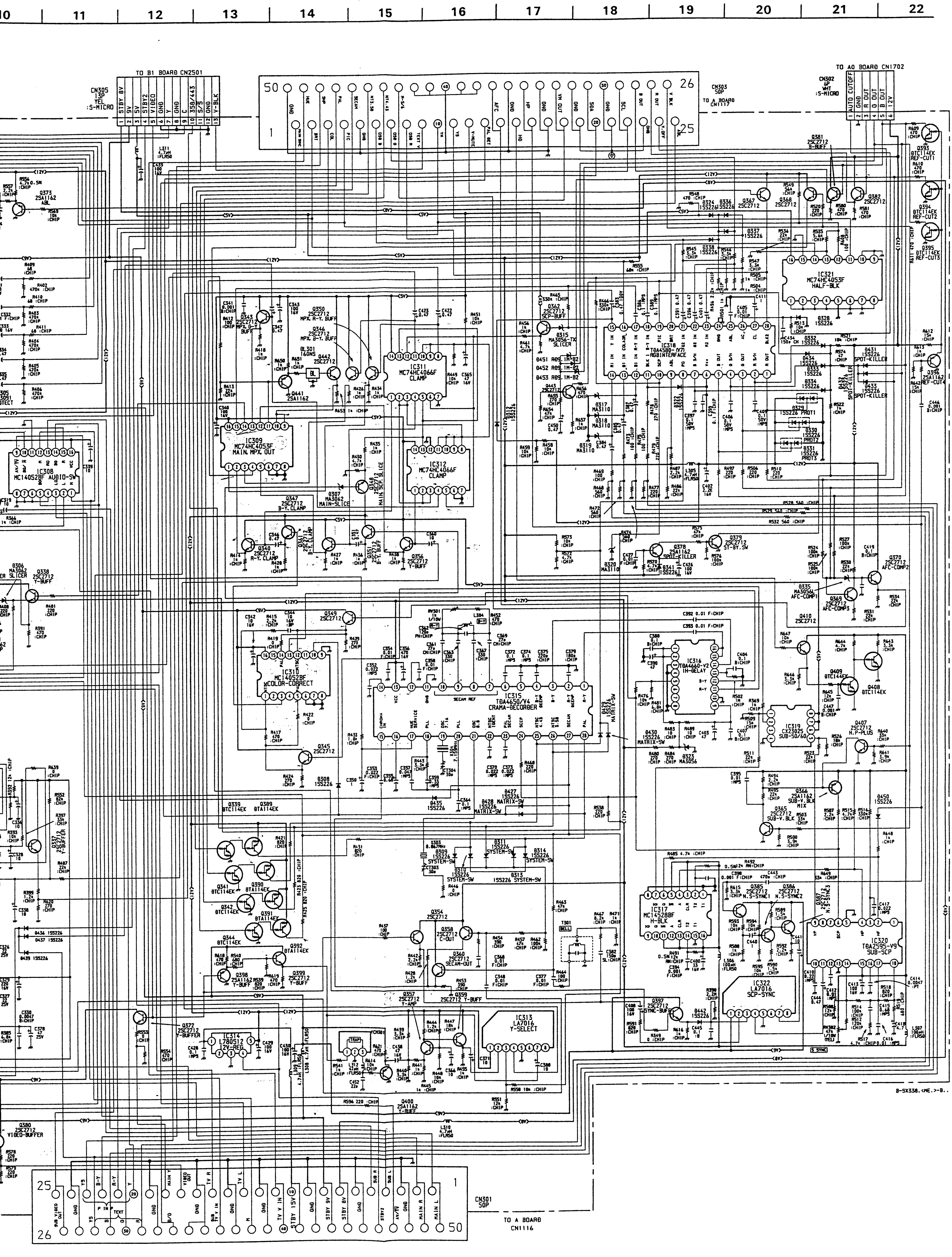
G
H
I
J
K
L
M
N
O
TO H1 BOARD CN2203
CN307 11P WHT :S-MICRO
TO H1 BOARD CN2202
CN306 10P RED :S-MICRO
CN305 13P YEL :S-MICRO
TO B1 BOARD CN2
IC301 CXA1545S AC-SW
IC303 CXA1315M CONVERTER
IC302 MC14066BF OUTPUT-MUTE
IC304 MC14066BF OUTPUT-MUTE
IC305 CX20125 DYNAMIC-PIC
IC306 LA7016 VIDEO-SW
IC308 MC14052BF AUDIO-SW
IC307 CXA1387S SHARPNESS CONTROL
CN308 30P :HINGE
TO J BOARD CN2301
CN309 18P :HINGE
TO J BOARD CN2302
B
VIDEO-SW. AUDIO-SW
SHARPNESS. DINMIC PIC
CHROMA DECORDER
R.G.B INTERFACE


10
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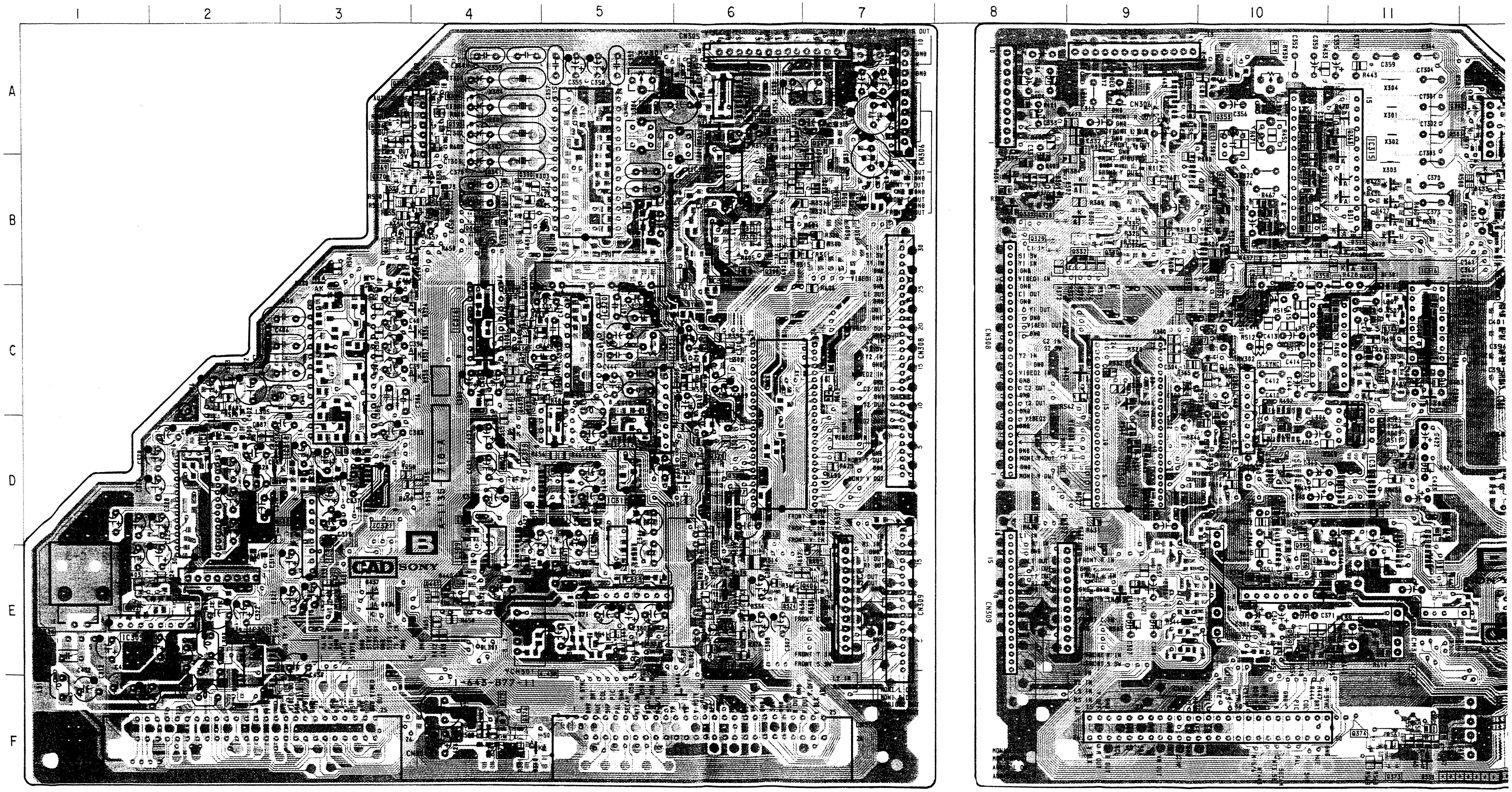
22
TO B1 BOARD CN2501
CN305 13P YEL :S-MICRO
STBY 8V
9V
5V
STBY2
VIDEO
GND
Y
GND
C
358/443
S/S
GND
Y-BLK
CN303 50P
TO A BOARD CN1117
CN302 6P WHT :S-MICRO
TO A0 BOARD CN1702
AUTO CUTOFF
GND
R OUT
G OUT
B OUT
12V
Q393 DTC114EK REF-CUT1
Q394 DTC114EK REF-CUT2
Q395 DTC114EK REF-CUT3
Q381 2SC2712 B-BUFF
Q382 2SC2712
Q367 2SC2712
Q368 2SC2712
Q373 2SA1162
IC321 MC74HC4053F HALF-BLK
IC318 TDA4580-(V7) -RGBINTERFACE
Q362 2SC2712 SCP-BUFF
D315 MA3056-TX SLICER
Q350 2SC2712 MPX. R-Y. BUFF
Q346 2SC2712 MPX. B-Y. BUFF
Q343 2SC2712 MPX. G-Y. BUFF
BL301 160NS
Q442 2SC2712
Q441 2SA1162
IC311 MC74HC4066F CLAMP
IC309 MC74HC4053F MAIN. MPX. OUT
IC308 MC14052BF AUDIO-SW
IC312 MC74HC4066F CLAMP
D307 MA3062 MAIN-SLICE
Q348 2SC2712 MAIN SCP. SLICE
Q347 2SC2712 B-Y. CLAMP
Q340 2SC2712 R-Y. CLAMP
Q351 2SC2712 B-Y. BUFF
Q356 2SC2712 Y-BUFF
Q306 MA3062 SLICER
Q338 2SC2712 Y-BUFF
Q378 2SA1162 SPOT-KILLER
Q379 2SC2712 ST-BY. SW
D431 1SS226 SPOT-KILLER
D432 1SS226 SPOT-KILLER
D433 1SS226 SPOT-KILLER
D329 1SS226 PROT1
D330 1SS226 PROT2
D331 1SS226 PROT3
Q370 2SC2712 AFC-COMP2
D335 MA3056L AFC-COMP1
Q369 2SC2712 AFC-COMP3
Q410 2SC2712
Q349 2SC2712
IC310 MC14052BF COLOR-CORRECT
Q345 2SC2712
IC315 TDA4650/V4 CRAMA-DECORDER
L304
IC316 TDA4660-V2 1H-DELAY
IC319 CX23025 SUB-50/60
Q409 DTC144EV
Q408 DTC114EK
Q407 2SC2712 H.P-PLUS
D429 1SS226 MATRIX-SW
D430 1SS226 MATRIX-SW
D428 MATRIX-SW
D427 1SS226 MATRIX-SW
D323 MA3056
Q366 2SA1162 SUB-V. BLK MIX
Q365 2SC2712 SUB-V. BLK
D450 1SS226
Q339 DTC114EK
Q389 DTA114EK
Q341 DTC114EK
Q390 DTA114EK
Q342 DTC114EK
Q391 DTA114EK
Q344 DTC114EK
Q392 DTA114EK
Q398 2SA1162 Y-BUFF
Q399 2SC2712 Y-BUFF
Q337 2SC2712 Y-BUFFER
D436 1SS226
D437 1SS226
D439 1SS226
X303 8.867MHz
D309 1SS226 SYSTEM-SW
D310 1SS226 SYSTEM-SW
D311 1SS226 SYSTEM-SW
D313 1SS226 SYSTEM-SW
D314 1SS226 SYSTEM-SW
Q354 2SC2712
Q358 2SC2712 C-OUT
Q360 2SC2712 SECAM-OUT
T301 BELL
IC317 MC14528BF H-BLK
Q385 2SC2712 N.S-SYNC1
Q386 2SC2712 N.S-SYNC2
Q387 2SC2712 N.S-SYNC3
IC320 TDA2595-V9 SUB-SCP
IC322 LA7016 SCP-SYNC
Q397 2SC2712 SYNC-BUFF
D442 1SS226
Q357 2SC2712 Y-AMP
Q359 2SC2712 Y-BUFF
IC313 LA7016 Y-SELECT
Q372 2SC2712 Y-BUFFER
IC314 L78DS12 12V-REG
Q400 2SA1162 Y-BUFF
Q380 2SC2712 VIDEO-BUFFER
S SYNC
CN301 50P
TO A BOARD CN1116
B-SX338.<ME.>-B..

B VIDEO - SW , AUDIO - SW, SHARPNESS
DINMIC PIC, CHROMA DECORDER
R , G , B INTERFACE

— B Board —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A
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D
E
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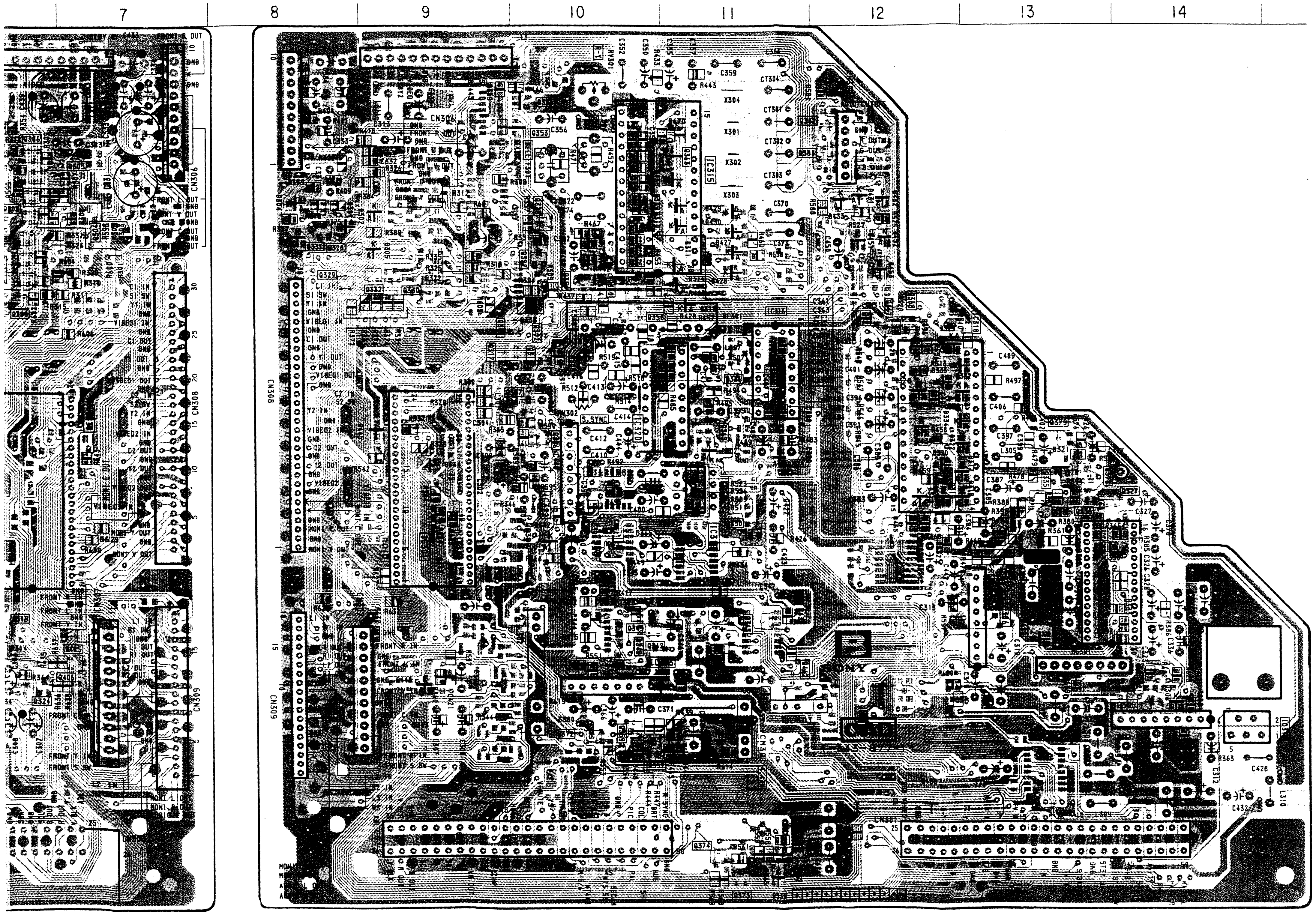
CN305
CN306
CN308
CN309
CAD
SONY
B
1-643-877-11



○ : Pattern from the side which enables seeing.

● ▒ : Pattern of the rear side.

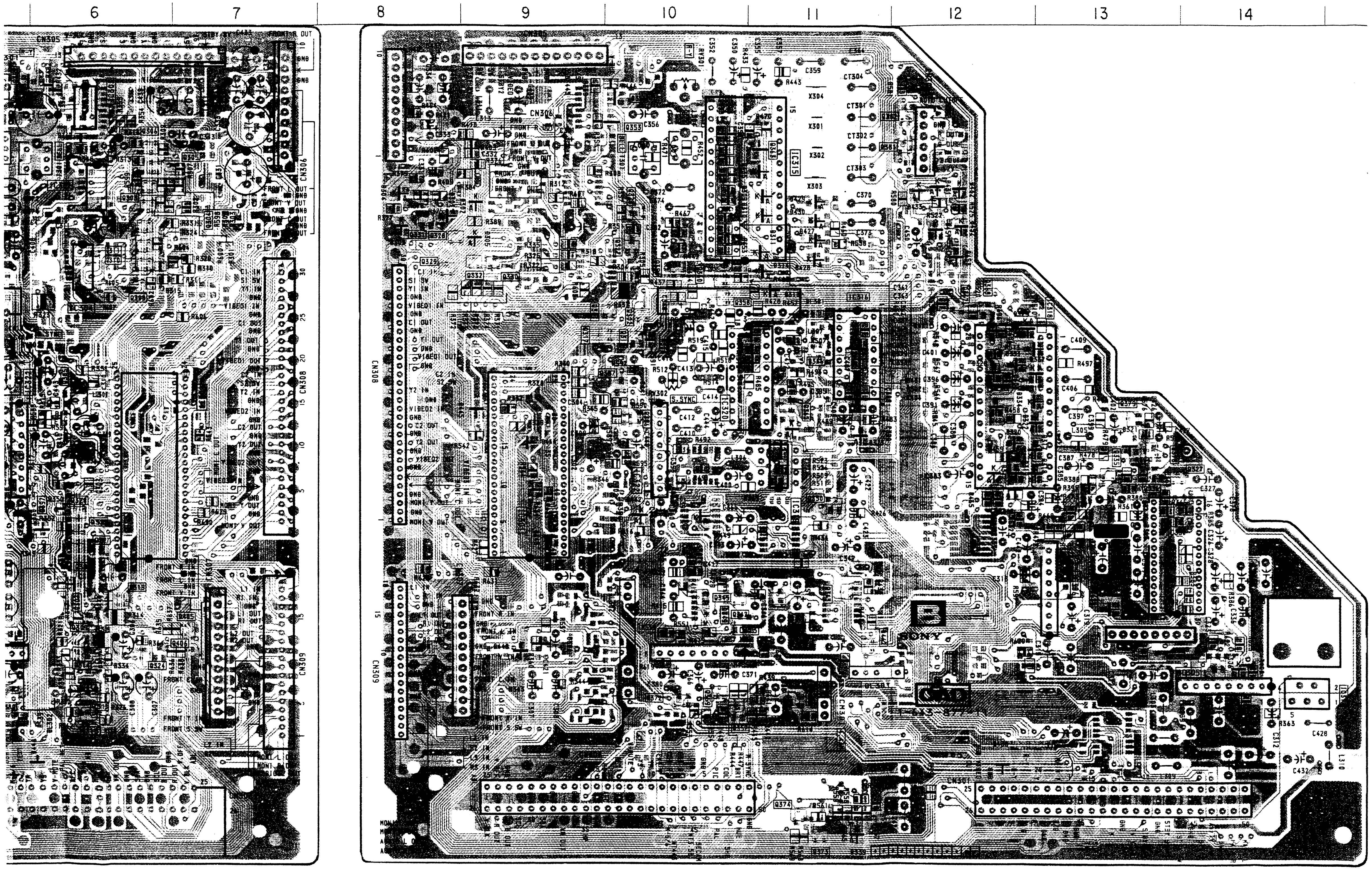
B Board

IC	
IC301	D-9
302	B-6
303	A-6
304	B-6
305	E-14
306	D-13
307	D-13
308	E-2
309	E-4
310	D-5
311	D-5
312	D-5
313	E-10
314	E-14
315	B-10
316	C-11
317	D-5
318	C-12
319	D-11
320	C-11
321	D-3
322	C-10

TRANSISTOR	
Q301	B-10
302	C-10
303	B-6
304	B-6
305	A-6
306	A-6
307	E-6
308	B-6
309	E-6
310	B-6
311	B-6
312	C-10
313	E-6
314	E-6
315	B-6
316	E-6
317	C-10
318	E-6
319	E-6
320	D-6
321	D-6
322	B-10
323	B-10
324	E-6
325	D-6
326	D-3
327	D-13
328	B-8
329	B-8
330	B-9
331	B-8
332	B-9
333	
335	D-13
336	D-13
337	E-13
338	E-3
339	B-4
340	D-11
341	B-4
342	B-4
343	D-11
344	B-4
345	D-10
346	D-4
347	D-10
348	C-5
349	E-10
350	D-11
351	E-5
354	B-10
356	D-4
357	E-10
358	B-10
359	E-10
360	B-10
361	E-5
362	D-4
365	C-11
366	C-11
367	B-12
368	B-12
369	B-3
370	B-3
371	E-14
372	E-10
373	F-11
374	F-11
375	F-4
376	F-4
377	F-4
378	C-13
379	C-13
380	E-5
381	A-12
382	A-12
385	C-6
386	C-10
387	C-10
389	B-4
390	B-4
391	B-4
392	B-4
393	A-4
394	A-4
395	A-3
396	A-3
397	D-6
398	D-6
399	E-5
400	E-11
401	E-2
402	E-1
403	E-1
404	D-13
405	E-7
406	E-7
407	C-4
408	C-4
409	C-4
410	C-4
441	E-4
442	E-11
443	B-3

DIODE	
D301	B-8
302	B-9
303	B-8
304	B-8
305	B-9
306	E-14
307	C-11
308	D-10
309	B-11
310	B-11
311	B-11
312	B-12
313	B-11
314	B-11
315	D-4
317	C-13
318	D-13
319	D-12
320	C-12
322	C-13
323	C-11
324	C-4
328	C-12
329	C-12
330	B-3
331	C-13
332	C-13
333	C-1
334	C-1
335	B-4
336	C-4
337	C-4
338	C-4
339	F-1
340	F-4
341	D-2
427	B-1
428	B-1
429	B-1
430	B-1
431	B-1
432	B-1
433	B-1
434	C-1
	A-1
	E-3
437	E-3
439	E-3
442	D-1
448	E-9
450	C-1
451	B-1
452	B-1
453	B-1

VARIARB RESIST(	
RV301	A-1
302	C-1



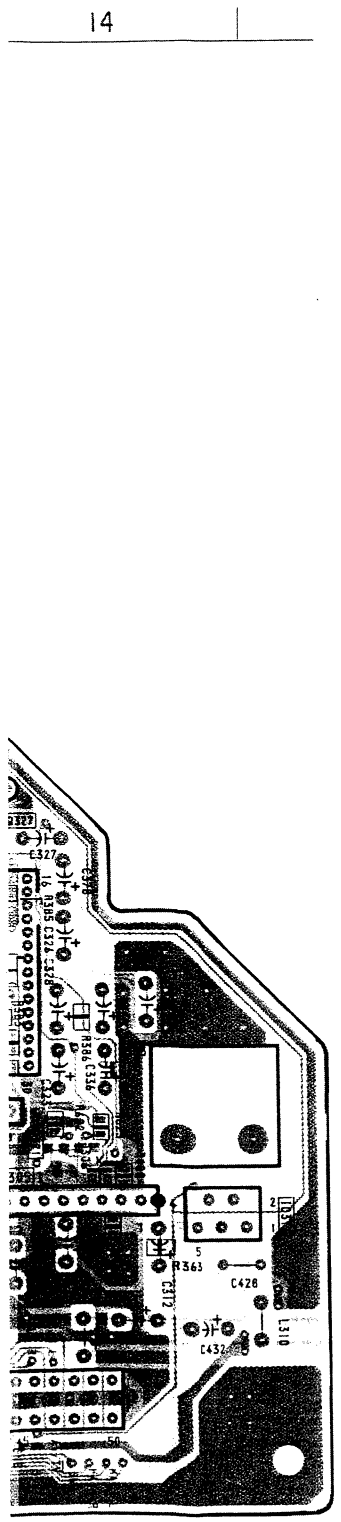
○ : Pattern from the side which enables seeing.
● ▨ : Pattern of the rear side.

B Board

IC	
IC301	D-9
302	B-6
303	A-6
304	B-6
305	E-14
306	D-13
307	D-13
308	E-2
309	E-4
310	D-5
311	D-5
312	D-5
313	E-10
314	E-14
315	B-10
316	C-11
317	D-5
318	C-12
319	D-11
320	C-11
321	D-3
322	C-10

TRANSISTOR	
Q301	B-10
302	C-10
303	B-6
304	B-6
305	A-6
306	A-6
307	E-6
308	B-6
309	E-6
310	B-6
311	B-6
312	C-10
313	E-6
314	E-6
315	B-6
316	E-6
317	C-10
318	E-6
319	E-6
320	D-6
321	D-6
322	B-10
323	B-10
324	E-6
325	D-6
326	D-3
327	D-13
328	B-8
329	B-8
330	B-9
331	B-8
332	B-9
333	
335	D-13
336	D-13
337	E-13
338	E-3
339	B-4
340	D-11
341	B-4
342	B-4
343	D-11
344	B-4
345	D-10
346	D-4
347	D-10
348	C-5
349	E-10
350	D-11
351	E-5
354	B-10
356	D-4
357	E-10
358	B-10
359	E-10
360	B-10
361	E-5
362	D-4
365	C-11
366	C-11
367	B-12
368	B-12
369	B-3
370	B-3
371	E-14
372	E-10
373	F-11
374	F-11
375	F-4
376	F-4
377	F-4
378	C-13
379	C-13
380	E-5
381	A-12
382	A-12
385	C-6
386	C-10
387	C-10
389	B-4
390	B-4
391	B
392	B
393	A
394	A
395	A
396	A
397	D
398	D
399	E
400	E
401	E
402	E
403	E
404	D
405	E
406	E
407	C
408	C
409	C
410	C
441	E
442	E
443	B

DIO	
D301	B
302	B
303	B
304	B
305	B
306	E
307	C
308	D
309	B
310	B
311	B
312	B
313	B
314	B
315	D
317	C
318	D
319	D
320	C
322	C
323	C
324	C
328	C
329	C
330	B
331	C
332	C


14
Q327
C327
16
R385
C326
C328
C378
R386
C336
R363
5
C428
C312
C432
L310
2
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rom the side which enables seeing.
f the rear side.

B Board

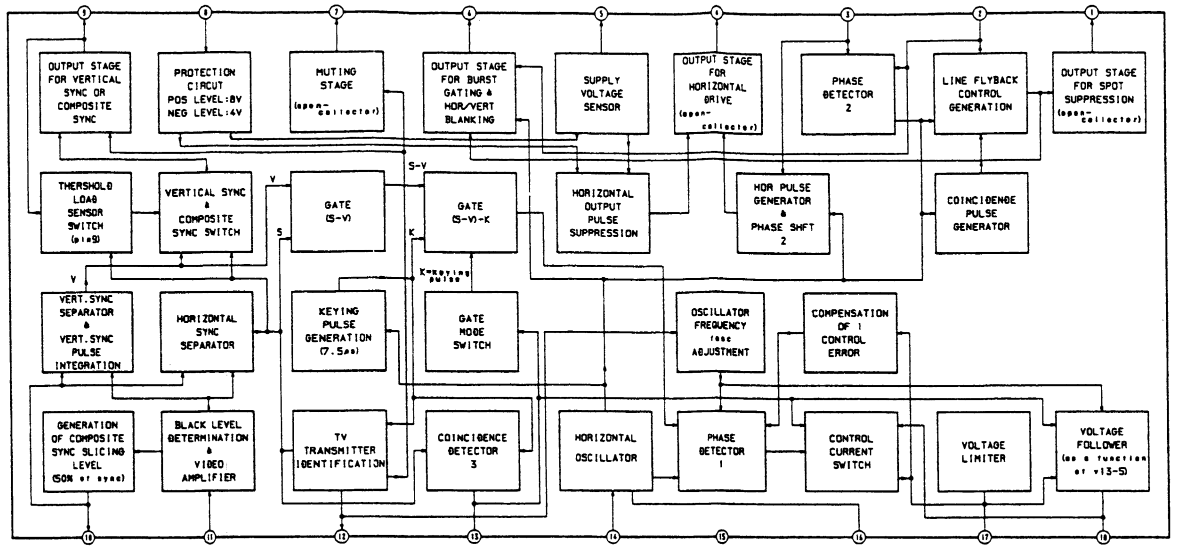
IC	
IC301	D-9
302	B-6
303	A-6
304	B-6
305	E-14
306	D-13
307	D-13
308	E-2
309	E-4
310	D-5
311	D-5
312	D-5
313	E-10
314	E-14
315	B-10
316	C-11
317	D-5
318	C-12
319	D-11
320	C-11
321	D-3
322	C-10

TRANSISTOR	
Q301	B-10
302	C-10
303	B-6
304	B-6
305	A-6
306	A-6
307	E-6
308	B-6
309	E-6
310	B-6
311	B-6
312	C-10
313	E-6
314	E-6
315	B-6
316	E-6
317	C-10
318	E-6
319	E-6
320	D-6
321	D-6
322	B-10
323	B-10
324	E-6
325	D-6
326	D-3
327	D-13
328	B-8
329	B-8
330	B-9
331	B-8
332	B-9
333	
335	D-13
336	D-13
337	E-13
338	E-3
339	B-4
340	D-11
341	B-4
342	B-4
343	D-11
344	B-4
345	D-10
346	D-4
347	D-10
348	C-5
349	E-10
350	D-11
351	E-5
354	B-10
356	D-4
357	E-10
358	B-10
359	E-10
360	B-10
361	E-5
362	D-4
365	C-11
366	C-11
367	B-12
368	B-12
369	B-3
370	B-3
371	E-14
372	E-10
373	F-11
374	F-11
375	F-4
376	F-4
377	F-4
378	C-13
379	C-13
380	E-5
381	A-12
382	A-12
385	C-6
386	C-10
387	C-10
389	B-4
390	B-4
391	B-4
392	B-4
393	A-4
394	A-4
395	A-3
396	A-3
397	D-6
398	D-6
399	E-5
400	E-11
401	E-2
402	E-1
403	E-1
404	D-13
405	E-7
406	E-7
407	C-4
408	C-4
409	C-4
410	C-4
441	E-4
442	E-11
443	B-3

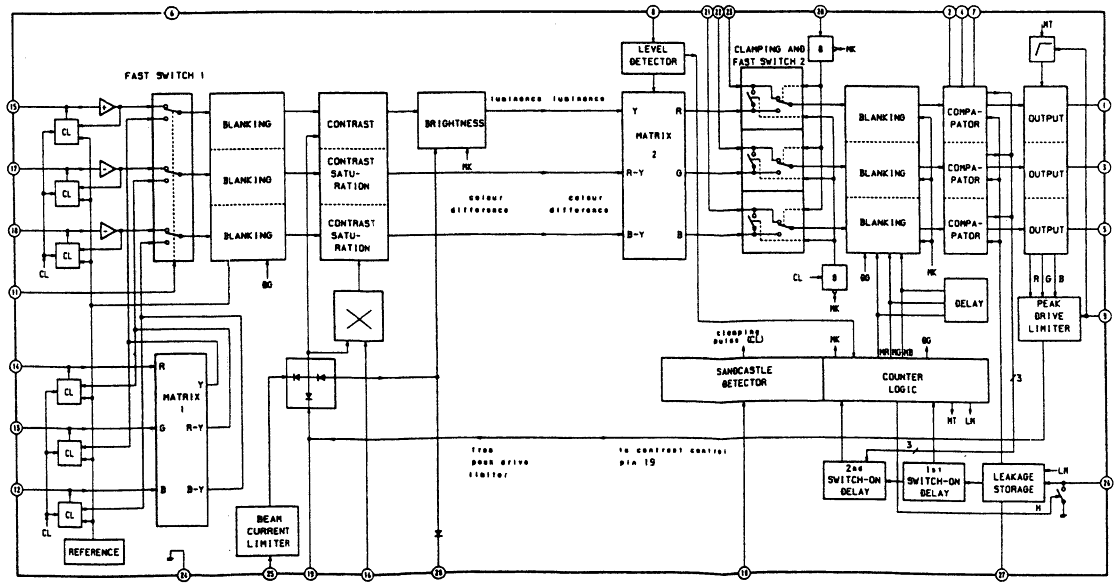
DIODE	
D301	B-8
302	B-9
303	B-8
304	B-8
305	B-9
306	E-14
307	C-11
308	D-10
309	B-11
310	B-11
311	B-11
312	B-12
313	B-11
314	B-11
315	D-4
317	C-13
318	D-13
319	D-12
320	C-12
322	C-13
323	C-11
324	C-4
328	C-12
329	C-12
330	B-3
331	C-13
332	C-13
333	C-12
334	C-13
335	B-4
336	C-4
337	C-4
338	C-4
339	F-11
340	F-4
341	D-2
427	B-11
428	B-11
429	B-11
430	B-11
431	B-12
432	B-12
433	B-12
434	C-12
435	A-11
436	E-3
437	E-3
439	E-3
442	D-10
448	E-9
450	C-11
451	B-12
452	B-12
453	B-12

VARIARBLE RESISTOR	
RV301	A-10
302	C-10

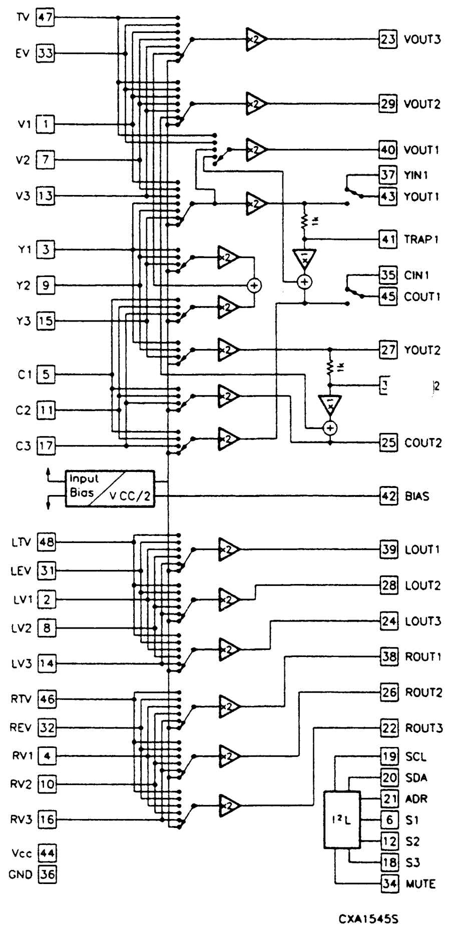
B Board IC320 TDA2595-V9


OUTPUT STAGE FOR VERTICAL SYNC OR COMPOSITE SYNC
PROTECTION CIRCUT POS LEVEL:8V NEG LEVEL:4V
MUTING STAGE (open-collector)
OUTPUT STAGE FOR BURST GATING & HOR/VERT BLANKING
SUPPLY VOLTAGE SENSOR
OUTPUT STAGE FOR HORIZONTAL DRIVE (open-collector)
PHASE DETECTOR 2
LINE FLYBACK CONTROL GENERATION
OUTPUT STAGE FOR SPOT SUPPRESSION (open-collector)
THERSHOLD LOAD SENSOR SWITCH (pin9)
VERTICAL SYNC & COMPOSITE SYNC SWITCH
V
S
GATE (S-V)
S-V
K
GATE (S-V)-K
HORIZONTAL OUTPUT PULSE SUPPRESSION
HOR PULSE GENERATOR & PHASE SHFT 2
COINCIDENCE PULSE GENERATOR
V
VERT.SYNC SEPARATOR & VERT.SYNC PULSE INTEGRATION
HORIZONTAL SYNC SEPARATOR
KEYING PULSE GENERATION (7.5μs)
K=keying pulse
GATE MODE SWITCH
OSCILLATOR FREQUENCY (osc ADJUSTMENT
COMPENSATION OF 1 CONTROL ERROR
GENERATION OF COMPOSITE SYNC SLICING LEVEL (50% of sync)
BLACK LEVEL DETERMINATION & VIDEO AMPLIFIER
TV TRANSMITTER IDENTIFICATION
COINCIDENCE DETECTOR 3
HORIZONTAL OSCILLATOR
PHASE DETECTOR 1
CONTROL CURRENT SWITCH
VOLTAGE LIMITER
VOLTAGE FOLLOWER (as a function of v13-5)
9
8
7
6
5
4
3
2
1
10
11
12
13
14
15
16
17
18

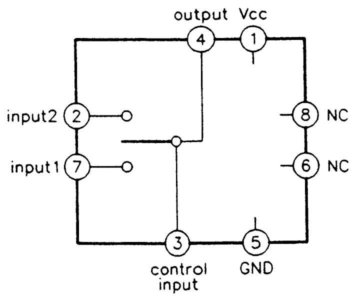
B Board IC318 TDA4580


6
8
21
22
23
20
2
4
7
FAST SWITCH 1
15
17
18
CL
CL
CL
CL
11
BLANKING
BLANKING
BLANKING
BG
CONTRAST
CONTRAST SATU-RATION
CONTRAST SATU-RATION
BRIGHTNESS
MK
luminance
luminance
colour difference
colour difference
LEVEL DETECTOR
Y
R
MATRIX 2
R-Y
G
B-Y
B
CLAMPING AND FAST SWITCH 2
MK
CL
MK
BG
BLANKING
BLANKING
BLANKING
COMPA-PATOR
COMPA-PATOR
COMPA-PATOR
OUTPUT
OUTPUT
OUTPUT
MT
1
3
5
9
R
G
B
PEAK DRIVE LIMITER
DELAY
14
13
12
CL
CL
CL
CL
R
Y
MATRIX 1
G
R-Y
B
B-Y
REFERENCE
BEAM CURRENT LIMITER
free peak drive limiter
to contrast control pin 19
clamping pulse (CL)
MK
BG
MR
MG
MB
SANDCASTLE DETECTOR
COUNTER LOGIC
3
MT
LM
3
2nd SWITCH-ON DELAY
1st SWITCH-ON DELAY
LEAKAGE STORAGE
LM
H
26
24
25
19
16
28
10
27

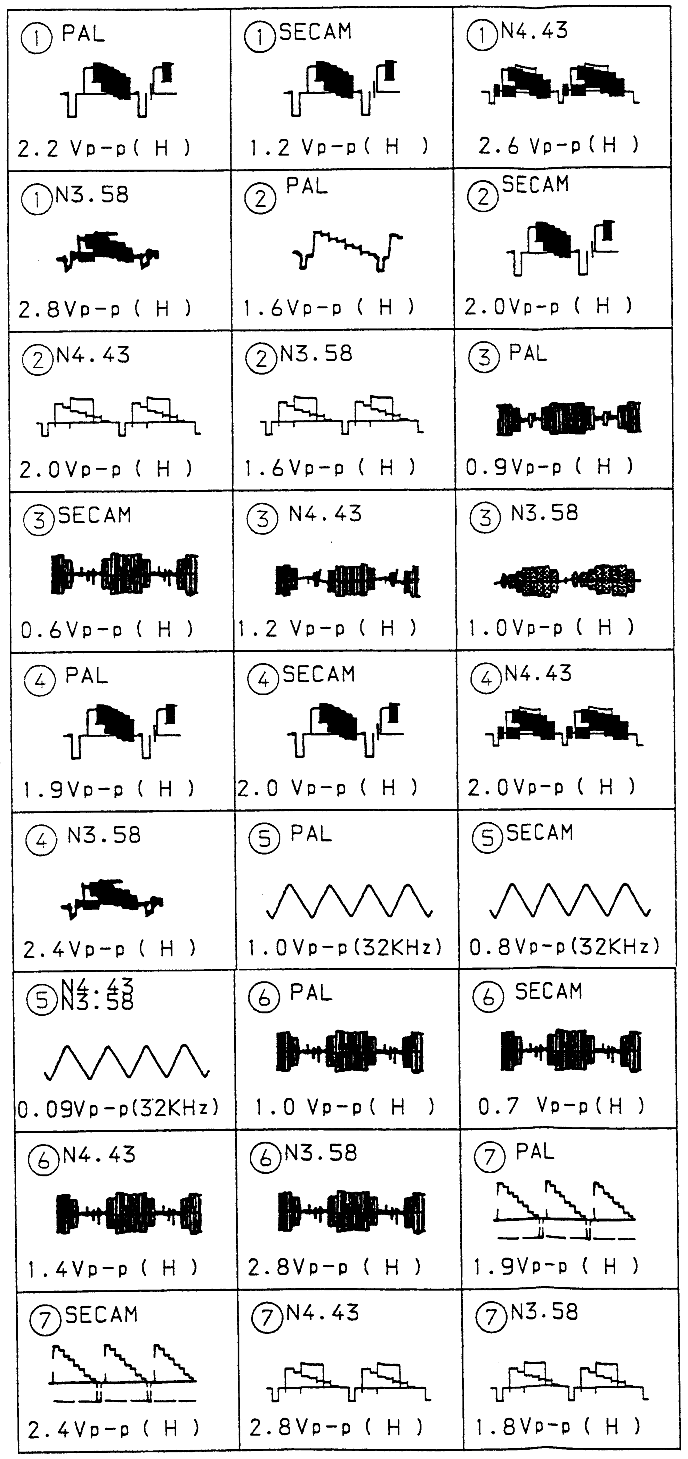
B Board IC301 CXA1545S


TV 47
EV 33
V1 1
V2 7
V3 13
Y1 3
Y2 9
Y3 15
C1 5
C2 11
C3 17
Input Bias
VCC/2
LTV 48
LEV 31
LV1 2
LV2 8
LV3 14
RTV 46
REV 32
RV1 4
RV2 10
RV3 16
Vcc 44
GND 36
×2
-1×
1k
+
23 VOUT3
29 VOUT2
40 VOUT1
37 YIN1
43 YOUT1
41 TRAP1
35 CIN1
45 COUT1
27 YOUT2
25 COUT2
42 BIAS
39 LOUT1
28 LOUT2
24 LOUT3
38 ROUT1
26 ROUT2
22 ROUT3
I²L
19 SCL
20 SDA
21 ADR
6 S1
12 S2
18 S3
34 MUTE
CXA1545S

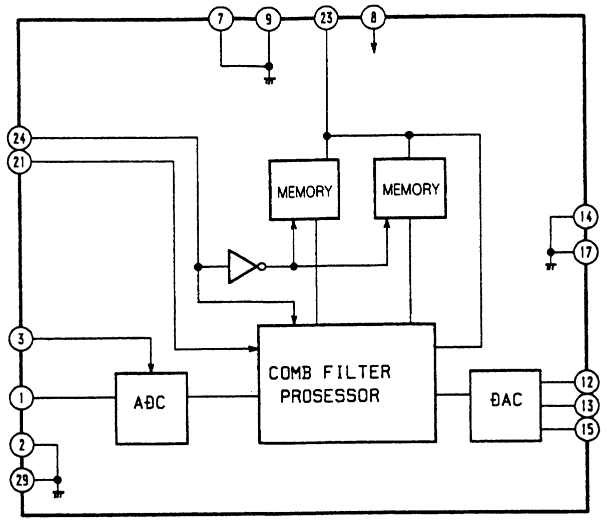
B Board IC322 LA7016


output
Vcc
4
1
input2
2
8
NC
input1
7
6
NC
3
5
control input
GND

B1 Board Waveforms



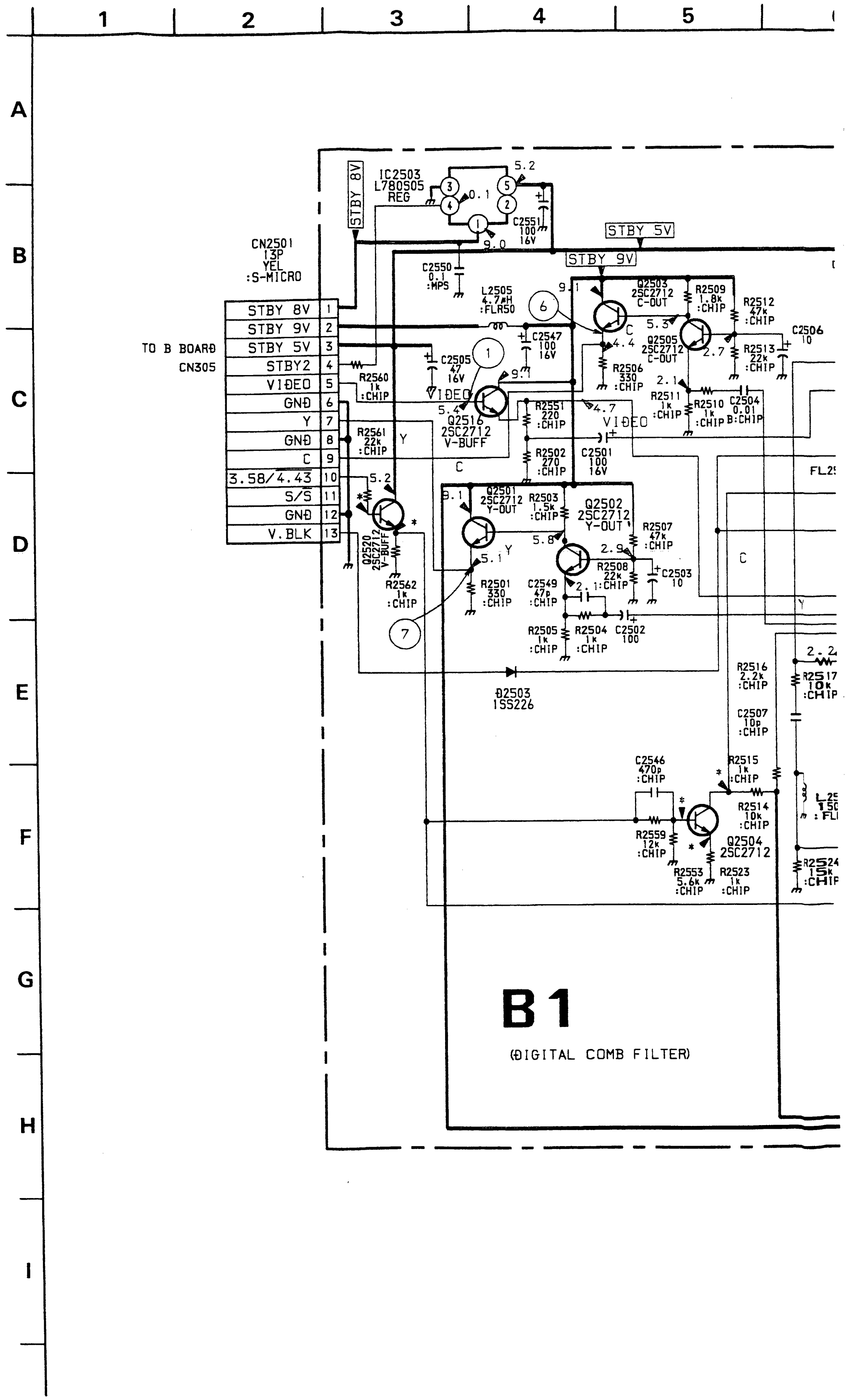
B1 Board IC2502 SBX1692-01


⑦
⑨
㉓
⑧
㉔
㉑
MEMORY
MEMORY
⑭
⑰
③
①
②
㉙
ADC
COMB FILTER PROSESSOR
DAC
⑫
⑬
⑮

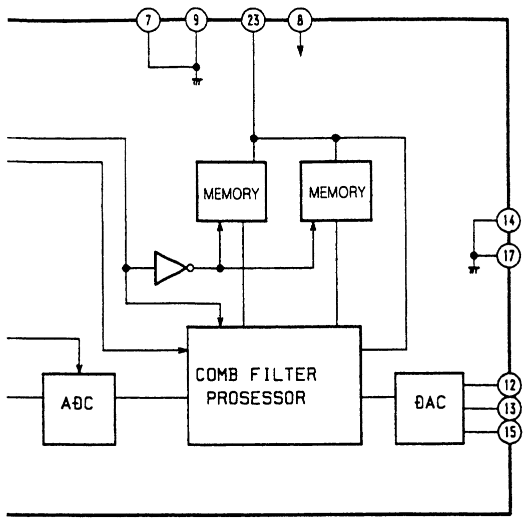
B1 Board

As to the voltage Volue shown by the mark ※ on the Schematic Diagram, see the another list.

		PAL	SECAM	NTSC 4.43	NTSC 3.58
IC2501	⑨	5.0	0.2	5.0	5.0
	⑩	0	0	4.7	5.0
	⑬	3.4	3.3	3.2	4.6
	⑭	2.6	2.6	2.6	3.0
	⑯	4.3	0	4.2	4.2
IC2502	㉑	0.3	4.1	0.4	0.4
	㉔	3.7	3.7	3.7	0.6
Q2504	(B)	0	0	0	1.2
	(C)	3.7	3.7	3.7	0.6
	(E)	0	0	0	0.6
Q2510	(B)	4.2	0	4.2	4.2
	(C)	0.1	4.7	0.1	0.1
Q2520	(B)	0.1	0.1	0.1	5.6
	(E)	0	0	0	5.0


1
2
3
4
5
A
B
C
D
E
F
G
H
I
TO B BOARD CN305
CN2501 13P YEL :S-MICRO
STBY 8V 1
STBY 9V 2
STBY 5V 3
STBY2 4
VIDEO 5
GND 6
Y 7
GND 8
C 9
3.58/4.43 10
S/S 11
GND 12
V.BLK 13
STBY 8V
IC2503 L780S05 REG
C2551 100 16V
STBY 5V
STBY 9V
C2550 0.1 :MPS
L2505 4.7μH :FLR50
C2547 100 16V
C2505 47 16V
R2560 1k :CHIP
Q2516 2SC2712 V-BUFF
R2561 22k :CHIP
Q2503 2SC2712 C-OUT
R2509 1.8k :CHIP
R2512 47k :CHIP
Q2505 2SC2712 C-OUT
R2513 22k :CHIP
C2506 10
R2506 330 :CHIP
R2511 1k :CHIP
R2510 1k :CHIP
C2504 0.01 B:CHIP
R2551 220 :CHIP
R2502 270 :CHIP
C2501 100 16V
VIDEO
Q2520 2SC2712 V-BUFF
R2562 1k :CHIP
Q2501 2SC2712 Y-OUT
R2503 1.5k :CHIP
Q2502 2SC2712 Y-OUT
R2507 47k :CHIP
R2508 22k :CHIP
C2503 10
R2501 330 :CHIP
C2549 47p :CHIP
R2505 1k :CHIP
R2504 1k :CHIP
C2502 100
D2503 1SS226
R2516 2.2k :CHIP
R2517 10k :CHIP
C2507 10p :CHIP
C2546 470p :CHIP
R2515 1k :CHIP
R2514 10k :CHIP
R2559 12k :CHIP
Q2504 2SC2712
R2553 5.6k :CHIP
R2523 1k :CHIP
R2524 15k :CHIP
FL25
B1
(DIGITAL COMB FILTER)

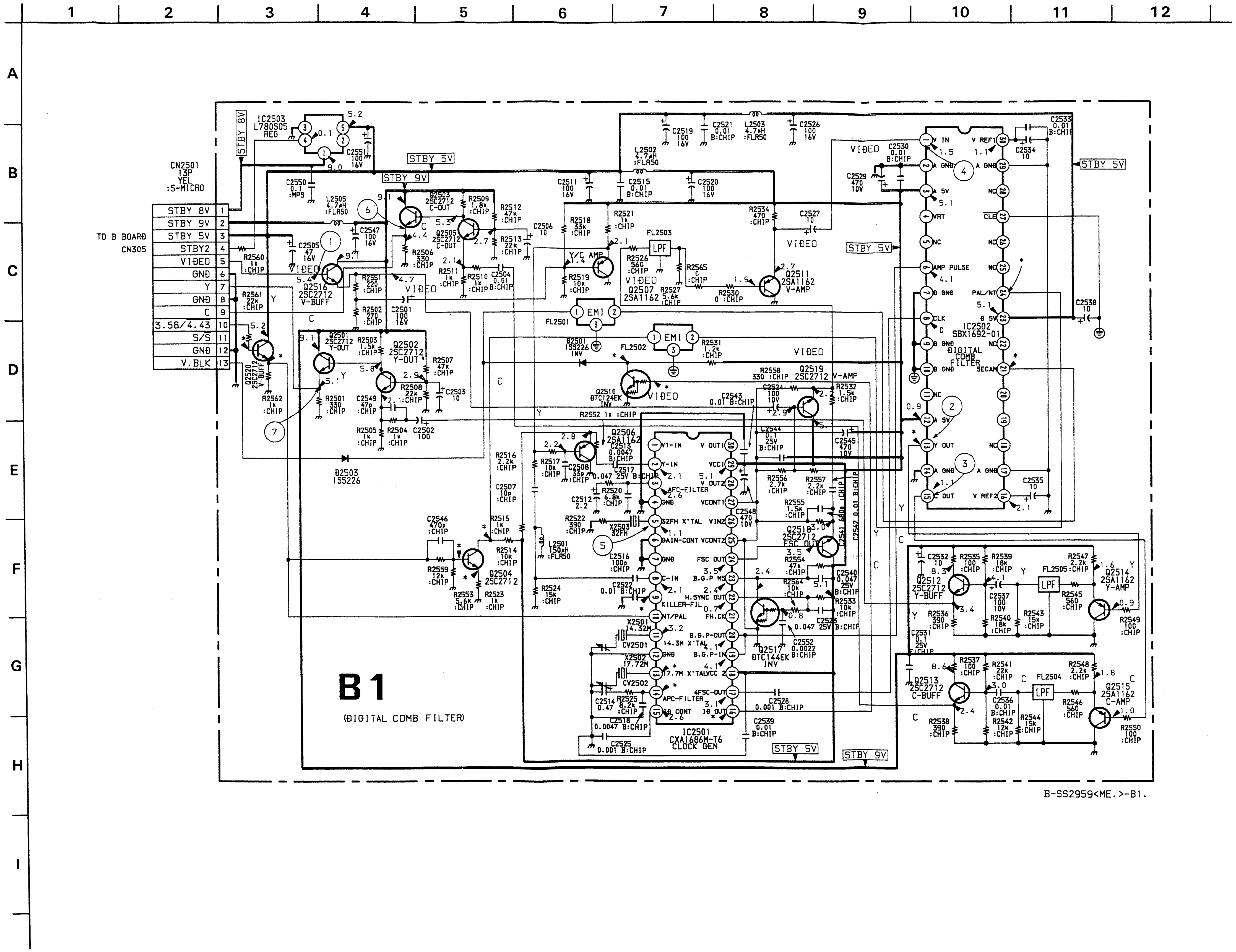
oard IC2502 SBX1692-01


⑦
⑨
㉓
⑧
MEMORY
MEMORY
COMB FILTER PROSESSOR
AÐC
ÐAC
⑭
⑰
⑫
⑬
⑮

oard

the voltage Volue shown by the
※ on the Schematic Diagram,
he another list.

		PAL	SECAM	NTSC 4.43	NTSC 3.58
01	⑨	5.0	0.2	5.0	5.0
	⑩	0	0	4.7	5.0
	⑬	3.4	3.3	3.2	4.6
	⑭	2.6	2.6	2.6	3.0
	⑯	4.3	0	4.2	4.2
02	㉑	0.3	4.1	0.4	0.4
	㉔	3.7	3.7	3.7	0.6
4	(B)	0	0	0	1.2
	(C)	3.7	3.7	3.7	0.6
	(E)	0	0	0	0.6
0	(B)	4.2	0	4.2	4.2
	(C)	0.1	4.7	0.1	0.1
0	(B)	0.1	0.1	0.1	5.6
	(E)	0	0	0	5.0


1
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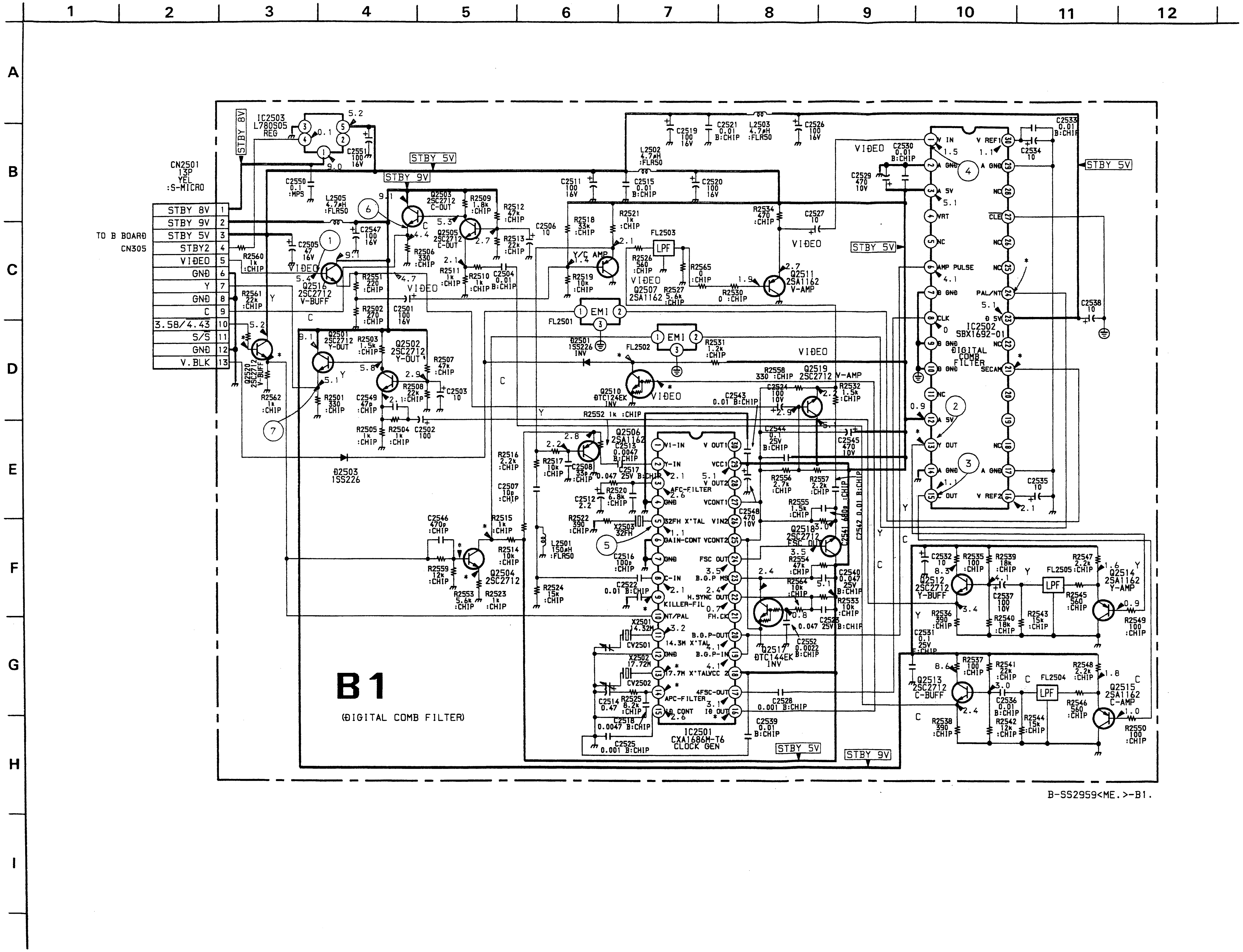
8
9
10
11
12
A
B
C
D
E
F
G
H
I
TO B BOARD CN305
CN2501 13P YEL :S-MICRO
STBY 8V 1
STBY 9V 2
STBY 5V 3
STBY2 4
VIÐEO 5
GNÐ 6
Y 7
GNÐ 8
C 9
3.58/4.43 10
S/S 11
GNÐ 12
V.BLK 13
IC2503 L780S05 REG
STBY 8V
STBY 5V
STBY 9V
Q2503 2SC2712 C-OUT
Q2505 2SC2712 C-OUT
Q2516 2SC2712 V-BUFF
Q2501 2SC2712 Y-OUT
Q2502 2SC2712 Y-OUT
Q2520 2SC2712 V-BUFF
Q2507 2SA1162
Q2511 2SA1162 V-AMP
Q2510 ÐTC124EK INV
Q2519 2SC2712 V-AMP
Q2506 2SA1162
Q2504 2SC2712
Q2518 2SC2712 FSC OUT
Q2517 ÐTC144EK INV
Q2512 2SC2712 Y-BUFF
Q2513 2SC2712 C-BUFF
Q2514 2SA1162 Y-AMP
Q2515 2SA1162 C-AMP
D2501 1SS226 INV
D2503 1SS226
FL2501
FL2502
FL2503 LPF
FL2504 LPF
FL2505 LPF
EMI
Y/C AMP
VIÐEO
IC2502 SBX1692-01 ÐIGITAL COMB FILTER
IC2501 CXA1686M-T6 CLOCK GEN
X2501 14.32M
X2502 17.72M
CV2501
CV2502
B1
(ÐIGITAL COMB FILTER)
B-SS2959<ME.>-B1.


1
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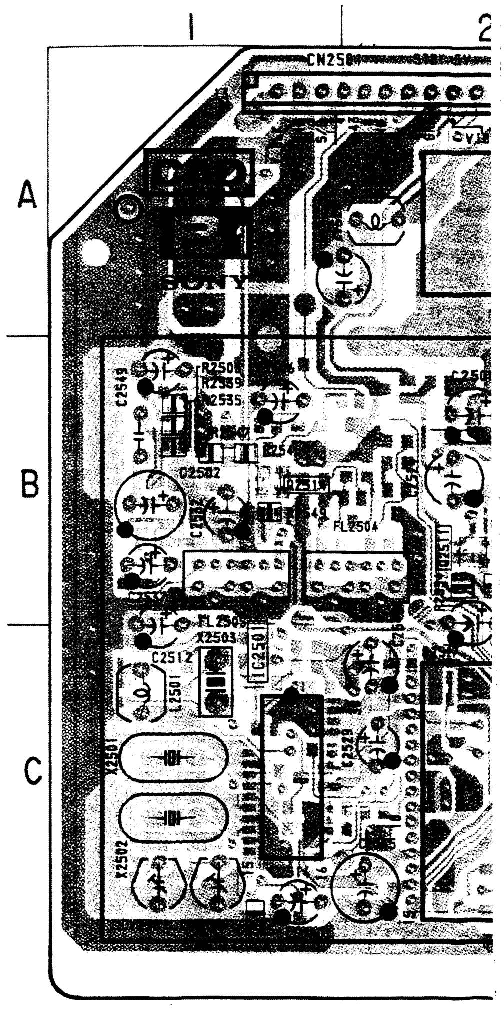
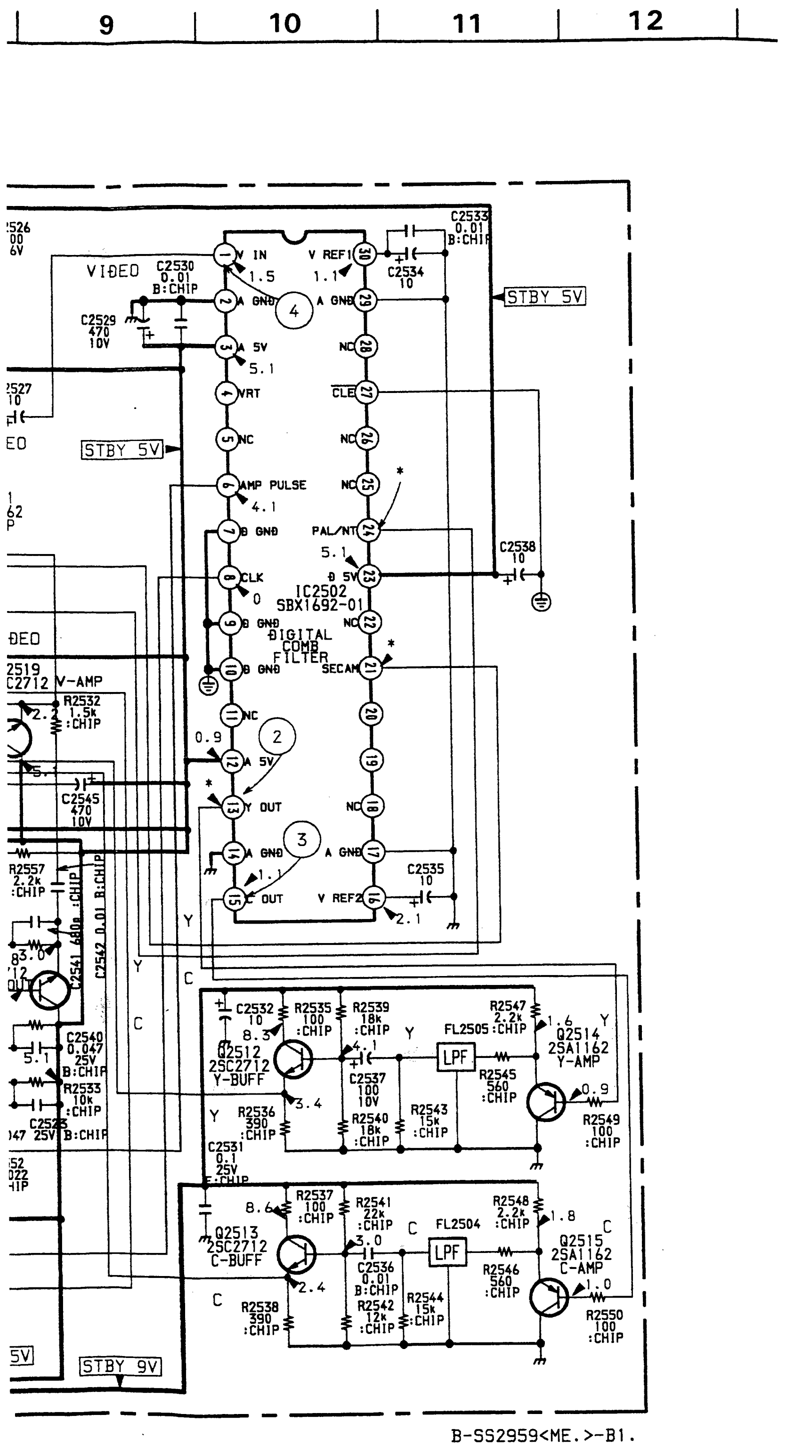
8
9
10
11
12
A
B
C
D
E
F
G
H
I
TO B BOARD CN305
CN2501 13P YEL :S-MICRO
STBY 8V
STBY 9V
STBY 5V
STBY2
VIDEO
GND
Y
GND
C
3.58/4.43
S/S
GND
V.BLK
IC2503 L78O5O5 REG
STBY 5V
STBY 9V
STBY 8V
Q2516 2SC2712 V-BUFF
Q2501 2SC2712 Y-OUT
Q2502 2SC2712 Y-OUT
Q2503 2SC2712 C-OUT
Q2505 2SC2712 C-OUT
Q2507 2SA1162
Q2511 2SA1162 V-AMP
Q2510 DTC124EK INV
Q2519 2SC2712 V-AMP
Q2506 2SA1162
Q2504 2SC2712
Q2518 2SC2712 FSC OUT
Q2517 DTC144EK INV
Q2512 2SC2712 Y-BUFF
Q2514 2SA1162 Y-AMP
Q2513 2SC2712 C-BUFF
Q2515 2SA1162 C-AMP
Q2520 2SC2712 V-BUFF
D2501 1SS226 INV
D2503 1SS226
FL2501 EMI
FL2502 EMI
FL2503 LPF
FL2504 LPF
FL2505 LPF
Y/C AMP
IC2502 SBX1692-01 DIGITAL COMB FILTER
IC2501 CXA1686M-T6 CLOCK GEN
X2501 4.43M
X2502 17.72M
X2503 32FH
CV2501
CV2502
L2501 150µH :FLR50
L2502 4.7µH :FLR50
L2503 4.7µH :FLR50
L2505 4.7µH :FLR50
VIDEO
B1
(DIGITAL COMB FILTER)
B-SS2959<ME.>-B1.

B1 [DIGITAL COMB FILTER]

—B1 Board—

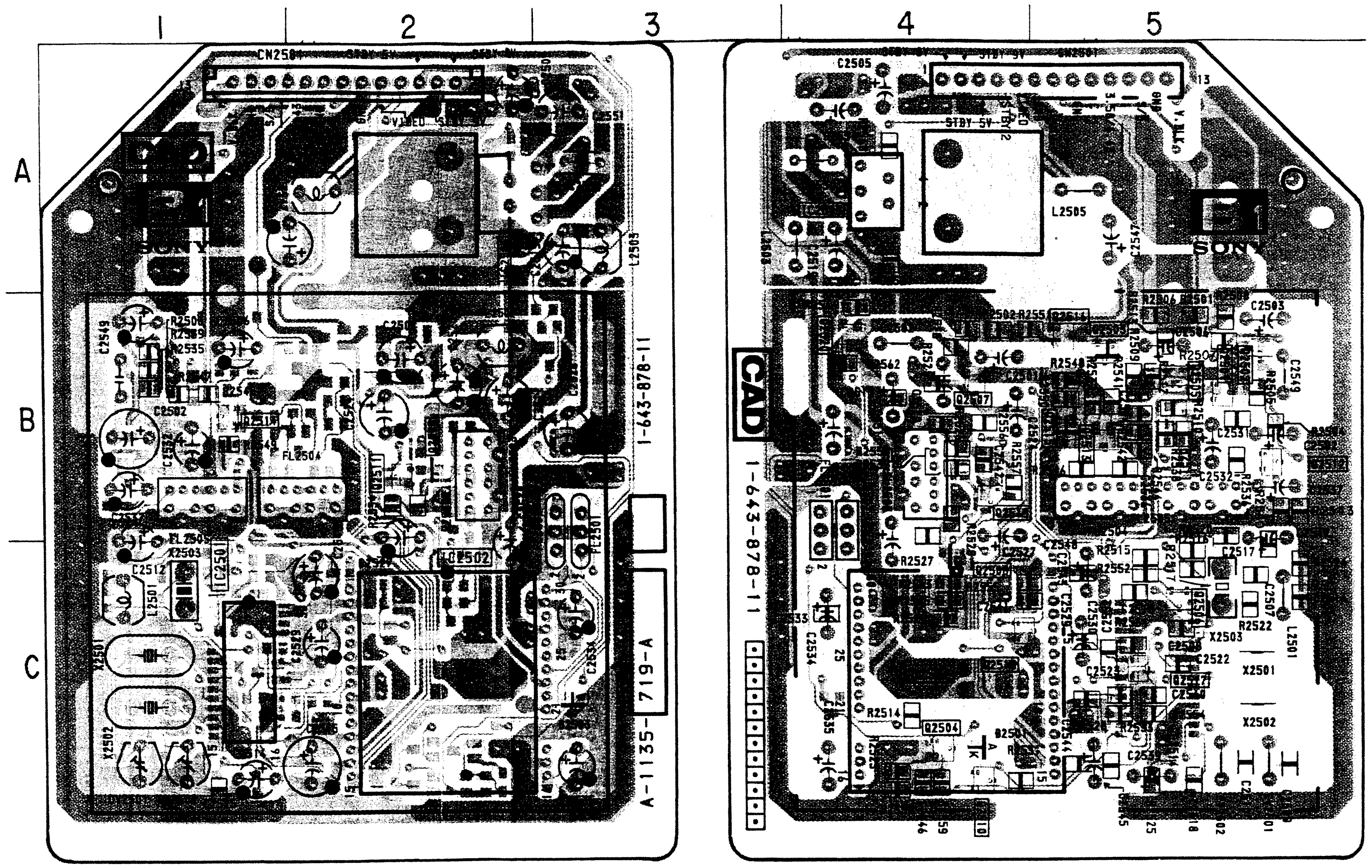

1
2
A
B
C
CN2501
X2501
X2502
IC2501
IC2512
FL2504
FL2502


9
10
11
12
VIDEO
C2530 0.01 B:CHIP
C2529 470 10V
STBY 5V
IC2502 SBX1692-01 DIGITAL COMB FILTER
V IN
A GND
5V
VRT
NC
AMP PULSE
B GND
CLK
V REF1
CLE
PAL/NT
8 5V
SECAM
Y OUT
OUT
V REF2
C2533 0.01 B:CHIP
C2534 10
C2538 10
C2535 10
C2532 10
R2535 100 :CHIP
R2539 18k :CHIP
R2547 2.2k :CHIP
FL2505
LPF
Q2512 2SC2712 Y-BUFF
Q2514 2SA1162 Y-AMP
R2545 560 :CHIP
R2549 100 :CHIP
R2536 390 :CHIP
C2537 100 10V
R2540 18k :CHIP
R2543 15k :CHIP
C2531 0.1 25V F:CHIP
R2537 100 :CHIP
R2541 22k :CHIP
R2548 2.2k :CHIP
FL2504
Q2513 2SC2712 C-BUFF
Q2515 2SA1162 C-AMP
C2536 0.01 B:CHIP
R2546 560 :CHIP
R2538 390 :CHIP
R2542 12k :CHIP
R2544 15k :CHIP
R2550 100 :CHIP
STBY 9V
R2532 1.5k :CHIP
C2545 470 10V
R2557 2.2k :CHIP
C2540 0.047 25V B:CHIP
R2533 10k :CHIP
V-AMP

B-SS2959<ME.>-B1.

B1 [DIGITAL COMB FILTER]

—B1 Board—


1
2
3
4
5
A
B
C
CN2501
CN2502
1-643-878-11
A-1135-719-A
CAD
SONY
L2505
X2501
X2502
IC2501
IC2502
Q2507
Q2504
FL2504
FL2505
C2502
C2505
C2534
R2514
R2527

● : Pattern from the side which enables seeing.

▨ : Pattern of the rear side.

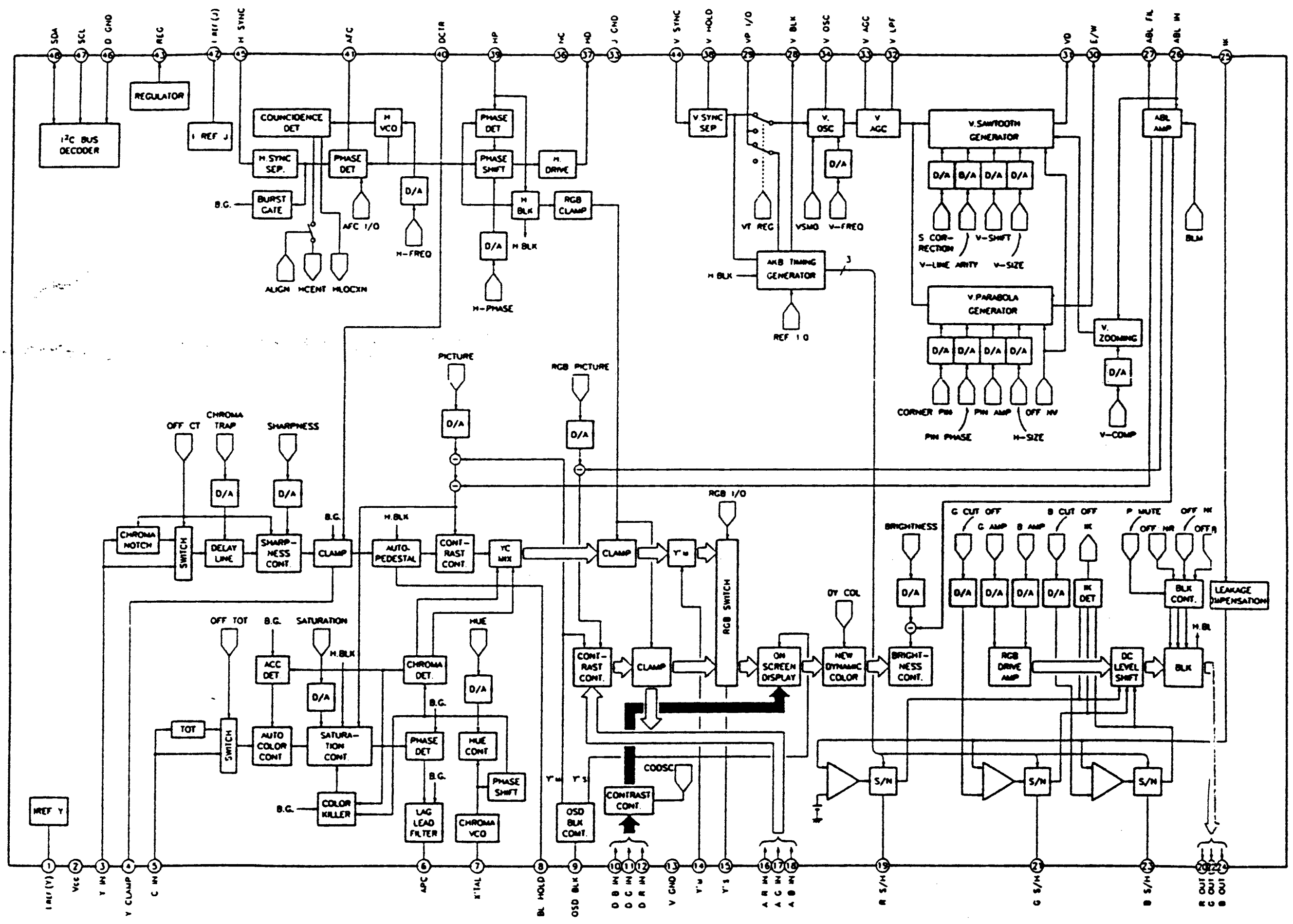
B1 Board

IC	
IC2501	C-1
2502	C-4
2503	A-4

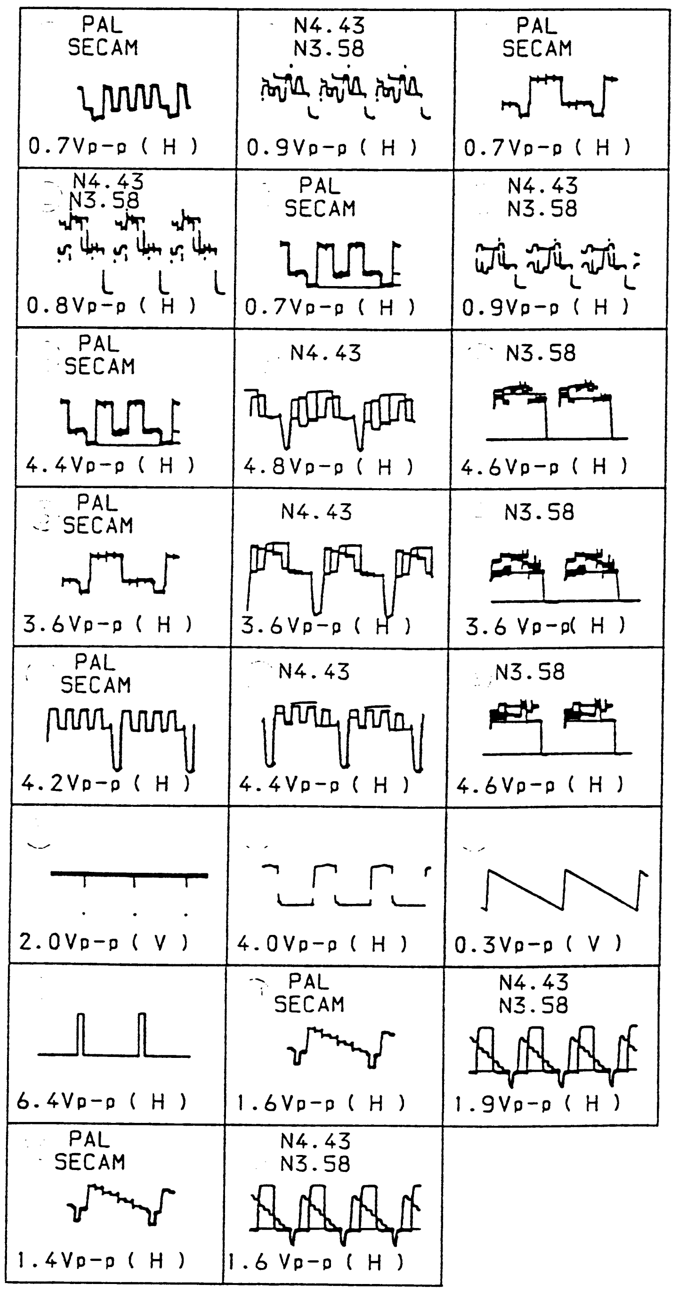
TRANSISTOR	
Q2501	B-5
2502	B-5
2503	B-5
2504	C-4
2505	B-5
2506	C-5
2507	B-4
2510	C-4
2511	B-2
2512	B-5
2513	B-5
2514	B-1
2515	B-5
2516	B-5
2517	C-5
2518	C-4
2819	B-4
2520	B-4

DIODE	
D2501	C-4
2502	C-3

A0 Board IC3501 CXA1464AS


SDA
SCL
D GND
REG
I REF (J)
H SYNC
AFC
DC1R
HP
HD
J GND
V SYNC
V HOLD
VP I/O
V BLK
V OSC
V AGC
V LPF
VD
E/W
ABL FIL
ABL IN
IK
REGULATOR
I²C BUS DECODER
I REF J
COINCIDENCE DET
H VCO
H SYNC SEP.
PHASE DET
BURST GATE
AFC I/O
ALIGN HCENT HLOCKN
D/A
H-FREQ
PHASE DET
PHASE SHIFT
H DRIVE
H BLK
RGB CLAMP
H-PHASE
V SYNC SEP
V OSC
V AGC
VT REG
VSMD
V-FREQ
AKB TIMING GENERATOR
REF I O
V.SAWTOOTH GENERATOR
S CORRECTION
V-SHIFT
V-LINEARITY
V-SIZE
V.PARABOLA GENERATOR
CORNER PIN
PIN AMP
OFF HV
PIN PHASE
H-SIZE
V. ZOOMING
V-COMP
ABL AMP
BLM
PICTURE
RGB PICTURE
OFF CT
CHROMA TRAP
SHARPNESS
CHROMA NOTCH
SWITCH
DELAY LINE
SHARPNESS CONT
CLAMP
AUTO PEDESTAL
CONTRAST CONT
YC MIX
RGB I/O
RGB SWITCH
BRIGHTNESS
G CUT OFF
G AMP
B CUT OFF
B AMP
P MUTE
OFF HK
OFF HR
IK DET
BLK CONT.
LEAKAGE COMPENSATION
OFF TOT
SATURATION
ACC DET
HUE
CHROMA DET
DY COL
NEW DYNAMIC COLOR
BRIGHTNESS CONT.
RGB DRIVE AMP
DC LEVEL SHIFT
BLK
TOT
AUTO COLOR CONT
SATURATION CONT
PHASE DET
HUE CONT
PHASE SHIFT
COLOR KILLER
LAG LEAD FILTER
CHROMA VCO
CONTRAST CONT
OSD BLK CONT.
ON SCREEN DISPLAY
CODSC
S/H
IREF
VCC
Y IN
Y CLAMP
C IN
APC
XTAL
BL HOLD
OSD BLK
V GND
R S/H
G S/H
B S/H
R OUT
G OUT
B OUT

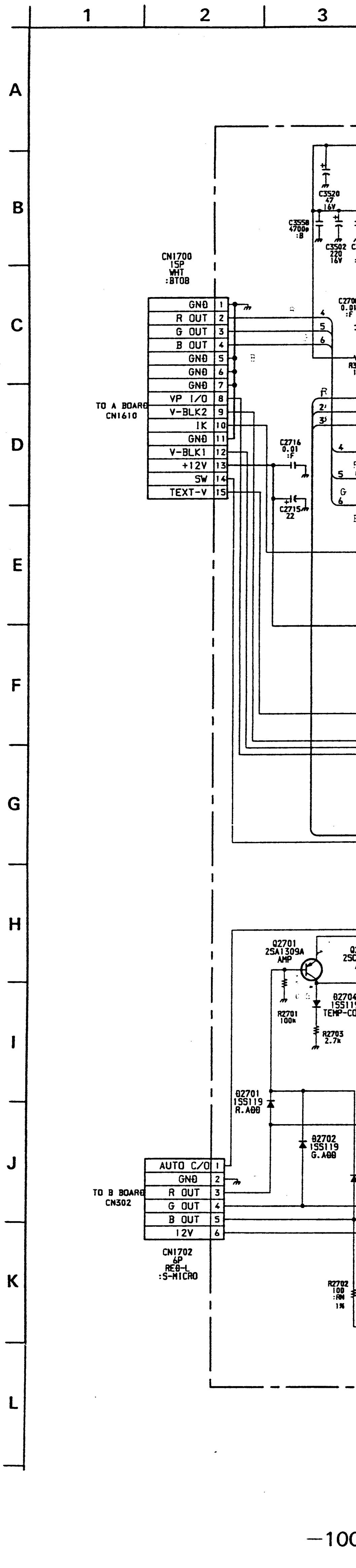
A0 Board Waveforms

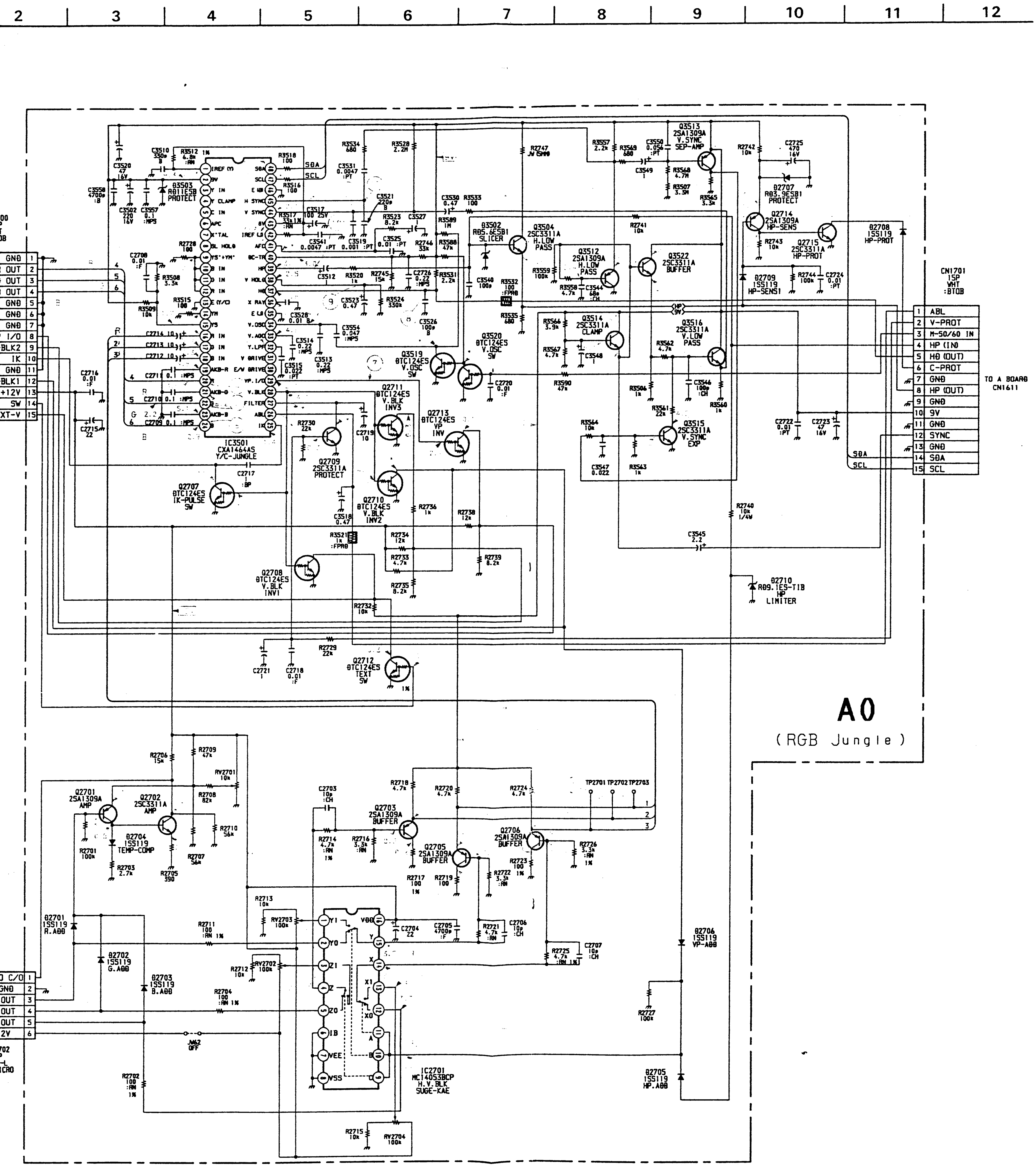


A0 Board

As to the voltage Value shown by the mark ⊕ on the Schematic Diagram see the another list

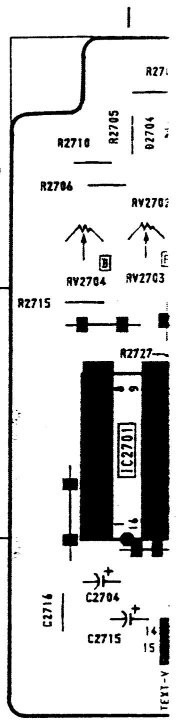
		PAL	SECAM	NTSC 4.43	NTSC 3.58
IC3501	[illegible]	1.7	[illegible]	1.6	1.6
	[illegible]	6.3	[illegible]	6.3	6.9
	[illegible]	3.3	3.[illegible]	3.0	3.0
Q2701	B	3.4	3.[illegible]	3.5	3.3
	E	3.9	[illegible]	3.3	3.5
[illegible]	[illegible]	3.5	[illegible]	3.7	2.9
[illegible]	[illegible]	6.3	[illegible]	[illegible]	6.[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	5.3	[illegible]	[illegible]	[illegible]
[illegible]	B	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	0		[illegible]	[illegible]
[illegible]	[illegible]	0		[illegible]	[illegible]
	[illegible]	3.4	[illegible]	[illegible]	[illegible]


1
2
3
A
B
C
D
E
F
G
H
I
J
K
L
CN1700 15P WHT :BT08
TO A BOARD CN1610
GND 1
R OUT 2
G OUT 3
B OUT 4
GND 5
GND 6
GND 7
VP I/O 8
V-BLK2 9
IK 10
GND 11
V-BLK1 12
+12V 13
SW 14
TEXT-V 15
C3520 47 16V
C3556 4700p :B
C3502 220 16V
C2716 0.01 :F
C2715 22
Q2701 2SA1309A AMP
R2701 100k
D2704 1SS119 TEMP-CO
R2703 2.7k
D2701 1SS119 R.A00
D2702 1SS119 G.A00
TO B BOARD CN302
AUTO C/O 1
GND 2
R OUT 3
G OUT 4
B OUT 5
12V 6
CN1702 6P REB-L :S-MICRO
R2702 100 :RN 1%


2
3
4
5
6
7
8
9
10
11
12
A0
(RGB Jungle)
IC3501 CXA1464AS Y/C-JUNGLE
IC2701 MC14053BCP H.V.BLK SUGE-KAE
CN1701 15P WHT :BTOB
1 ABL
2 V-PROT
3 H-50/60 IN
4 HP (IN)
5 HD (OUT)
6 C-PROT
7 GND
8 HP (OUT)
9 GND
10 9V
11 GND
12 SYNC
13 GND
14 SDA
15 SCL
TO A BOARD CN1611
Q3513 2SA1309A V.SYNC SEP-AMP
Q3502 RD5.6ESB1 SLICER
Q3504 2SC3311A H.LOW PASS
Q3512 2SA1309A H.LOW PASS
Q3522 2SC3311A BUFFER
Q3514 2SC3311A CLAMP
Q3516 2SC3311A V.LOW PASS
Q3515 2SC3311A V.SYNC EXP
Q3520 DTC124ES V.OSC SW
Q3519 DTC124ES V.OSC SW
Q2714 2SA1309A HP-SENS
Q2715 2SC3311A HP-PROT
D2707 RD3.9ESB1 PROTECT
D2708 1SS119 HP-PROT
D2709 1SS119 HP-SENS1
Q2711 DTC124ES V.BLK INV3
Q2713 DTC124ES VP INV
Q2709 2SC3311A PROTECT
Q2710 DTC124ES V.BLK INV2
Q2707 DTC124ES IK-PULSE SW
Q2708 DTC124ES V.BLK INV1
Q2712 DTC124ES TEXT SW
D2710 RD9.1ES-T1B HP LIMITER
D3503 RD11ESB PROTECT
Q2701 2SA1309A AMP
Q2702 2SC3311A AMP
D2704 1SS119 TEMP-COMP
Q2703 2SA1309A BUFFER
Q2705 2SA1309A BUFFER
Q2706 2SA1309A BUFFER
D2701 1SS119 R.ADD
D2702 1SS119 G.ADD
D2703 1SS119 B.ADD
D2706 1SS119 VP-ADD
D2705 1SS119 HP.ADD
TP2701 TP2702 TP2703
JW62 OFF
B-SS336.<HK.>-A0.

A0 [RGB

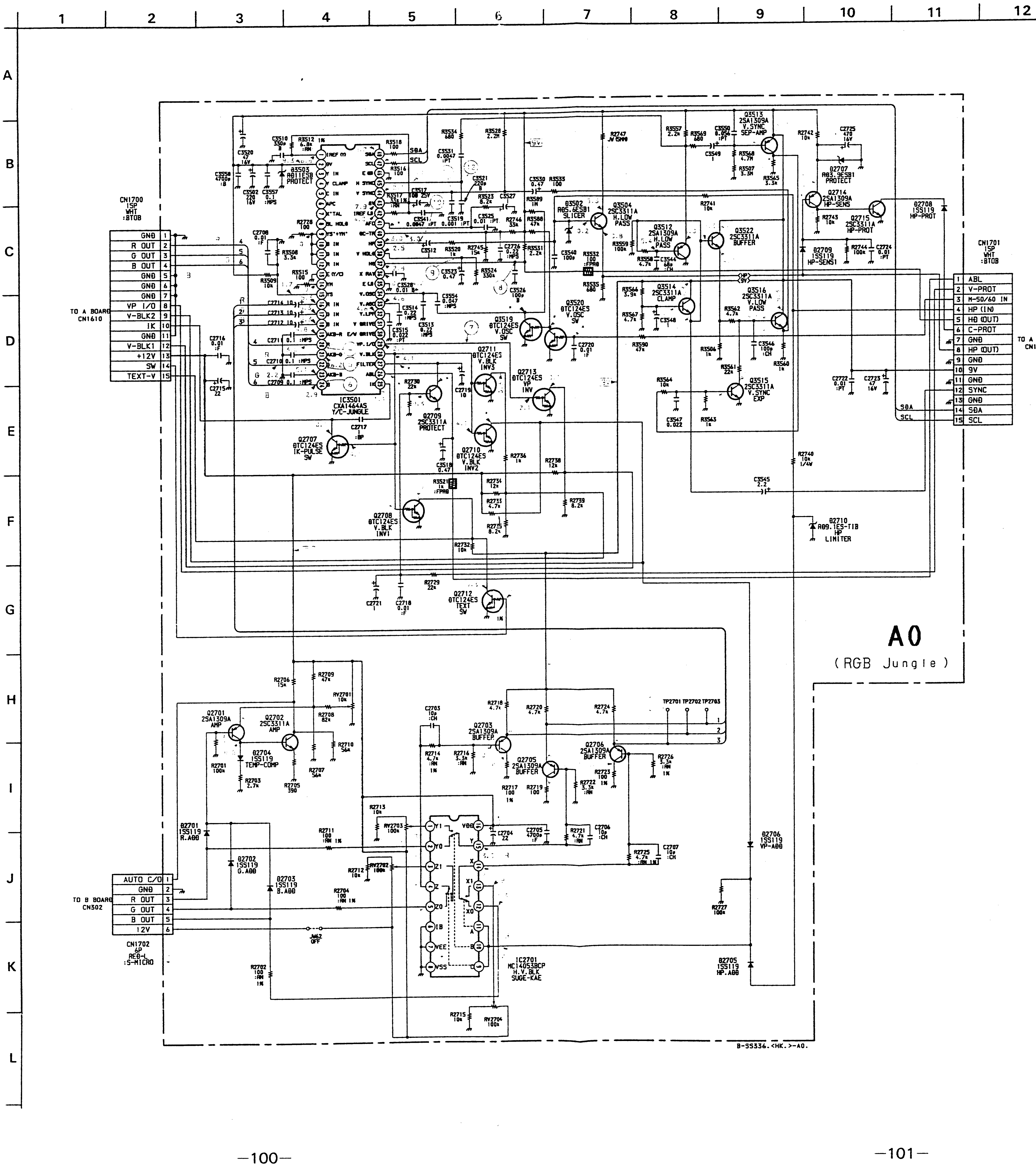
— A0 Board —

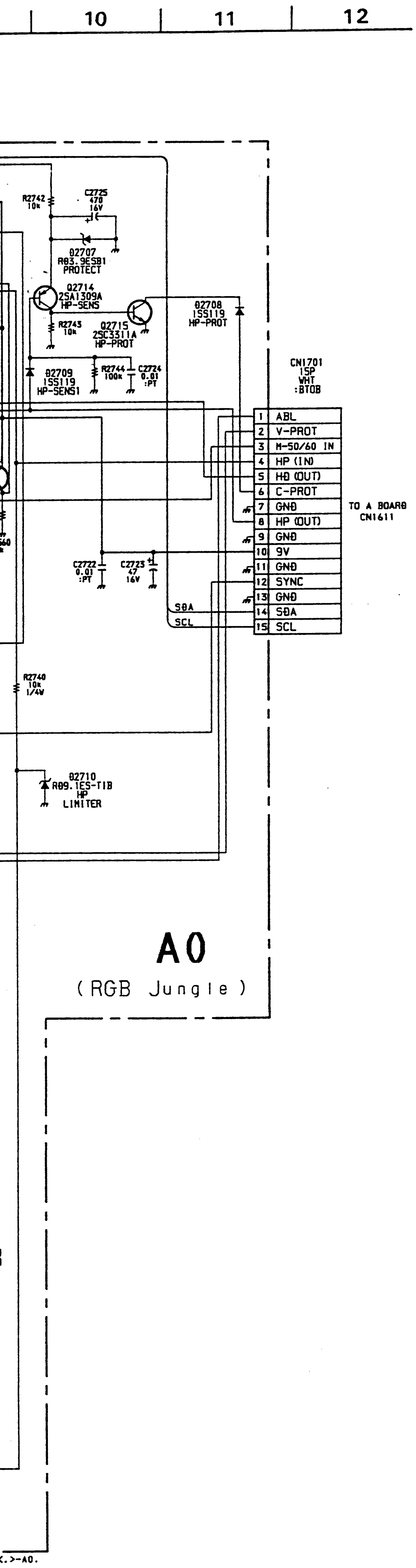

I
A
B
C
R2710
R2704
RV2704
RV2703
R2715
R2727
IC2701
C2704
C2715
C2716

A0 Board

IC	
IC2701	B-1
3501	B-3

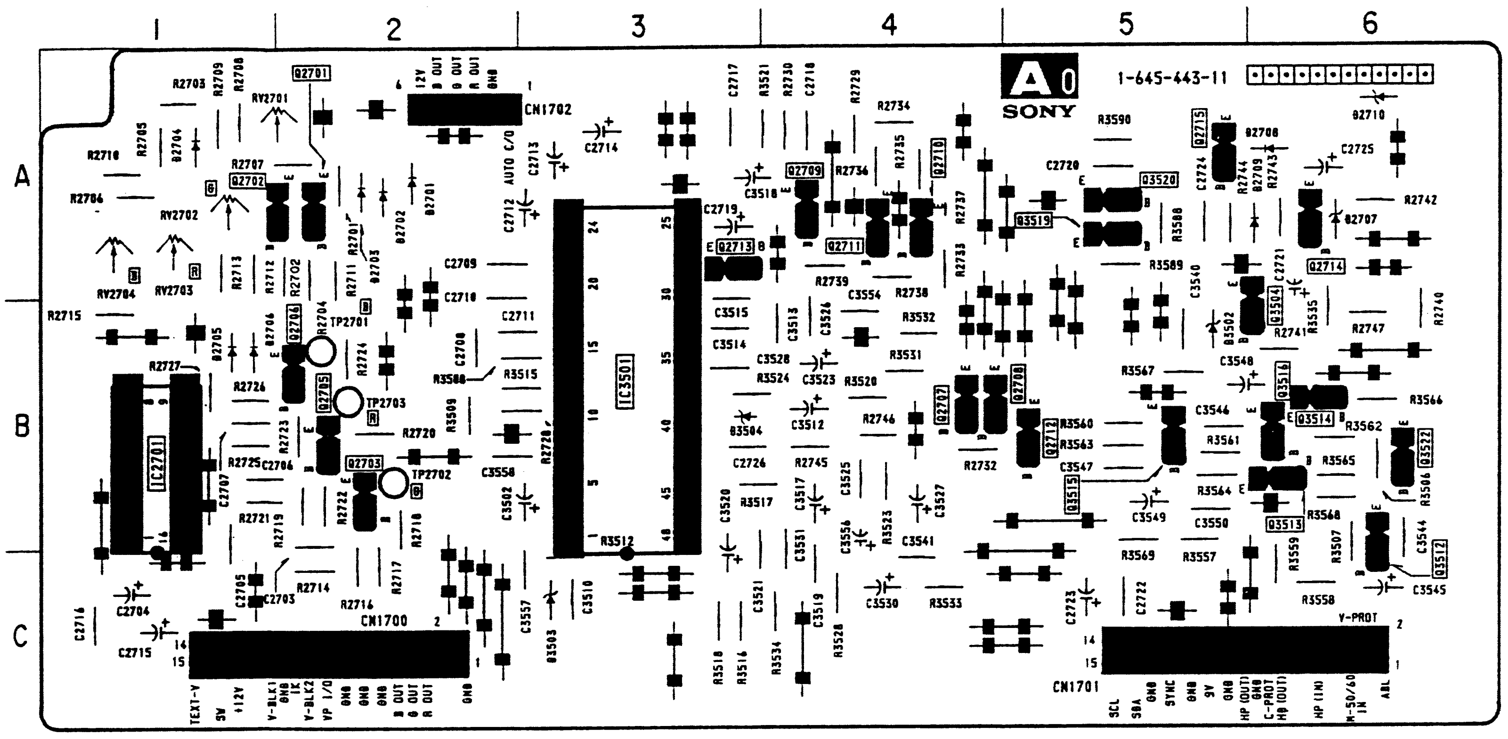
TRANSIST	
Q2701	A-2
2702	A-1
2703	B-2
2705	B-2
2706	B-2
2707	B-4
2708	B-4
2709	A-4
2710	A-4
2711	A-4
2712	B-5
2713	A-3
2714	A-6
2715	A-5
3504	B-6
3512	C-6
3513	B-6
3514	B-6
3515	B-5
3516	B-6
3519	A-5
3520	A-5
3522	B-6


A0
(RGB Jungle)
1
2
3
4
5
6
7
8
9
10
11
12
A
B
C
D
E
F
G
H
I
J
K
L
CN1700
15P
WHT
:BTOB
TO A BOARD
CN1610
GND 1
R OUT 2
G OUT 3
B OUT 4
GND 5
GND 6
GND 7
VP I/O 8
V-BLK2 9
IK 10
GND 11
V-BLK1 12
+12V 13
SW 14
TEXT-V 15
CN1701
15P
WHT
:BTOB
1 ABL
2 V-PROT
3 M-50/60 IN
4 HP (IN)
5 HD (OUT)
6 C-PROT
7 GND
8 HP (OUT)
9 GND
10 9V
11 GND
12 SYNC
13 GND
14 SDA
15 SCL
TO A
SDA
SCL
IC3501
CXA1464AS
Y/C-JUNGLE
D3503
RD11ESB
PROTECT
Q3513
2SA1309A
V.SYNC
SEP-AMP
Q3502
RD5.6ESB1
SLICER
Q3504
2SC3311A
H.LOW
PASS
Q3512
2SA1309A
H.LOW
PASS
Q3522
2SC3311A
BUFFER
Q3514
2SC3311A
CLAMP
Q3516
2SC3311A
V.LOW
PASS
Q3515
2SC3311A
V.SYNC
EXP
Q3519
DTC124ES
V.OSC
SW
Q3520
DTC124ES
V.OSC
SW
D2707
RD3.9ESB1
PROTECT
Q2714
2SA1309A
HP-SENS
Q2715
2SC3311A
HP-PROT
D2708
1SS119
HP-PROT
D2709
1SS119
HP-SENS1
Q2711
DTC124ES
V.BLK
INV3
Q2713
DTC124ES
VP
INV
Q2709
2SC3311A
PROTECT
Q2710
DTC124ES
V.BLK
INV2
Q2707
DTC124ES
IK-PULSE
SW
Q2708
DTC124ES
V.BLK
INV1
Q2712
DTC124ES
TEXT
SW
D2710
RD9.1ES-T1B
HP
LIMITER
Q2701
2SA1309A
AMP
Q2702
2SC3311A
AMP
D2704
1SS119
TEMP-COMP
Q2703
2SA1309A
BUFFER
Q2705
2SA1309A
BUFFER
Q2706
2SA1309A
BUFFER
TP2701 TP2702 TP2703
D2701
1SS119
R.ADD
D2702
1SS119
G.ADD
D2703
1SS119
B.ADD
D2706
1SS119
VP-ADD
D2705
1SS119
HP.ADD
IC2701
MC14053BCP
H.V.BLK
SUGE-KAE
JW62
OFF
TO B BOARD
CN302
AUTO C/O 1
GND 2
R OUT 3
G OUT 4
B OUT 5
12V 6
CN1702
6P
RED-L
:S-MICRO
B-SS336.<HK.>-A0.


10
11
12
R2742 10k
C2725 470 16V
Q2707 RD3.9ESB1 PROTECT
Q2714 2SA1309A HP-SENS
R2743 10k
Q2715 2SC3311A HP-PROT
D2708 1SS119 HP-PROT
D2709 1SS119 HP-SENS1
R2744 100k
C2724 0.01 :PT
CN1701 15P WHT :BTOB
1 ABL
2 V-PROT
3 M-50/60 IN
4 HP (IN)
5 HD (OUT)
6 C-PROT
7 GND
8 HP (OUT)
9 GND
10 9V
11 GND
12 SYNC
13 GND
14 SDA
15 SCL
TO A BOARD CN1611
C2722 0.01 :PT
C2723 47 16V
SDA
SCL
R2740 10k 1/4W
D2710 RD9.1ES-T1B HP LIMITER
A0
(RGB Jungle)

A0 [RGB Jungle]

— A0 Board —


1
2
3
4
5
6
A
B
C
A0
SONY
1-645-443-11
CN1702
CN1700
CN1701
IC2701
IC3501
TP2701
TP2702
TP2703
V-PROT
TEXT-Y
9V
12V
Y-BLK1
Y-BLK2
VP I/O
GND
B OUT
G OUT
R OUT
SCL
SDA
SYNC
HP (OUT)
C-PROT
HD (OUT)
HP (IN)
M-50/60 IN
ABL

A0 Board

IC	
IC2701	B-1
3501	B-3

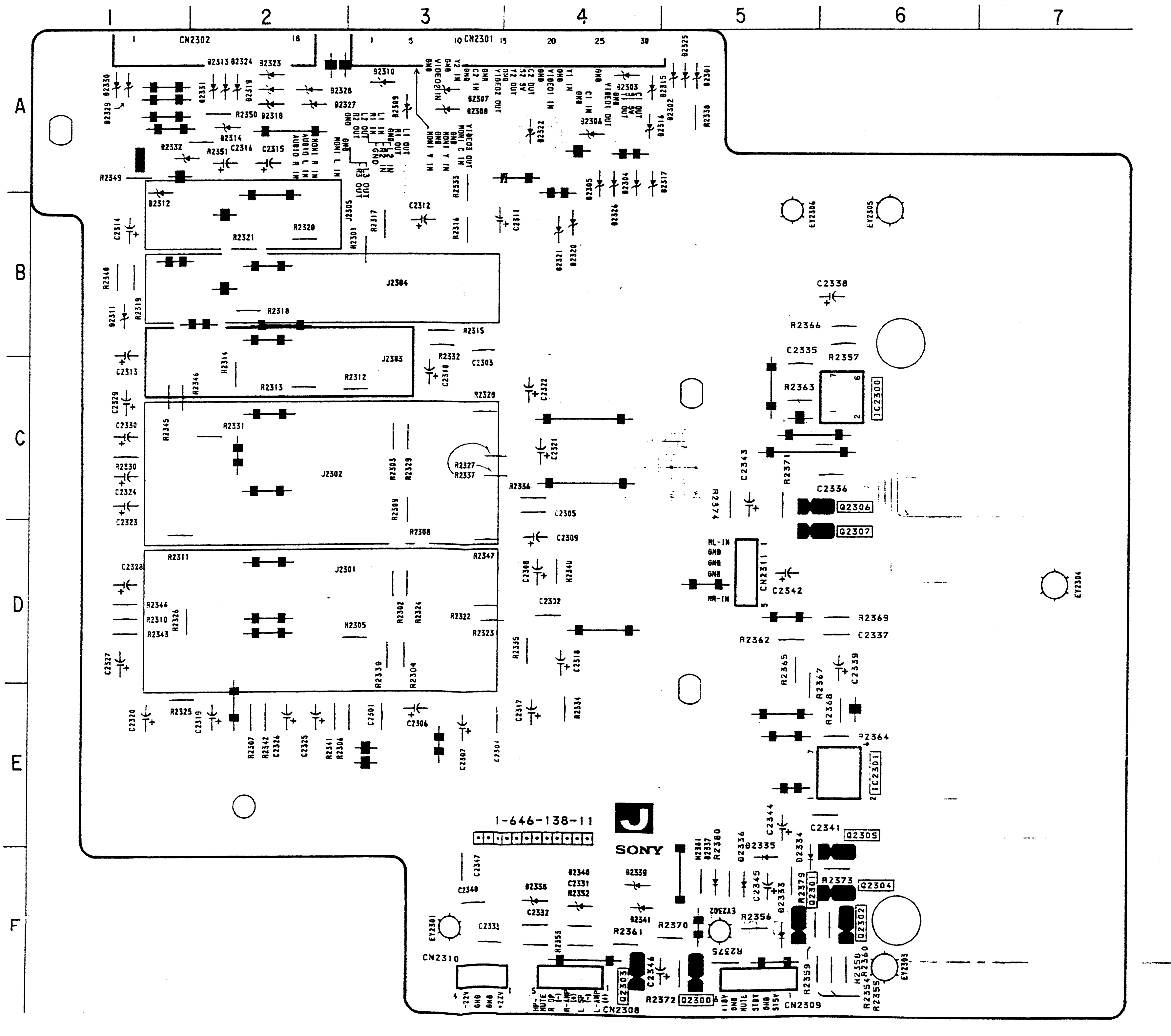
TRANSISTOR	
Q2701	A-2
2702	A-1
2703	B-2
2705	B-2
2706	B-2
2707	B-4
2708	B-4
2709	A-4
2710	A-4
2711	A-4
2712	B-5
2713	A-3
2714	A-6
2715	A-5
3504	B-6
3512	C-6
3513	B-6
3514	B-6
3515	B-5
3516	B-6
3519	A-5
3520	A-5
3522	B-6

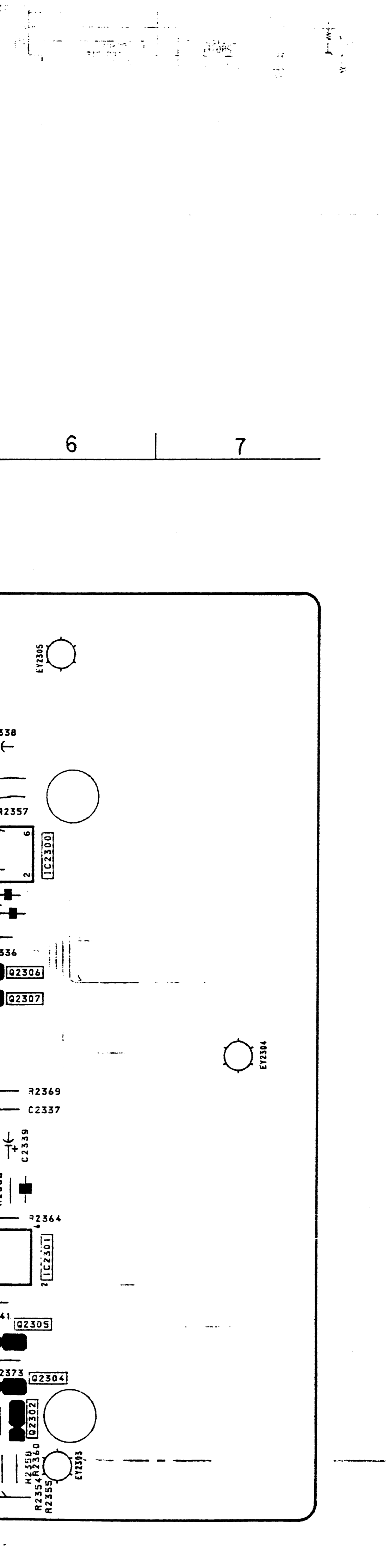
DIODE	
D2701	A-2
2702	A-2
2703	A-2
2704	A-1
2705	B-1
2706	B-1
2707	A-6
2708	A-6
2709	A-6
2710	A-6
3502	B-5
3503	C-3

VARIARBLE RESISTOR	
RV2701	A-2
2702	A-1
2703	A-1
2704	A-1

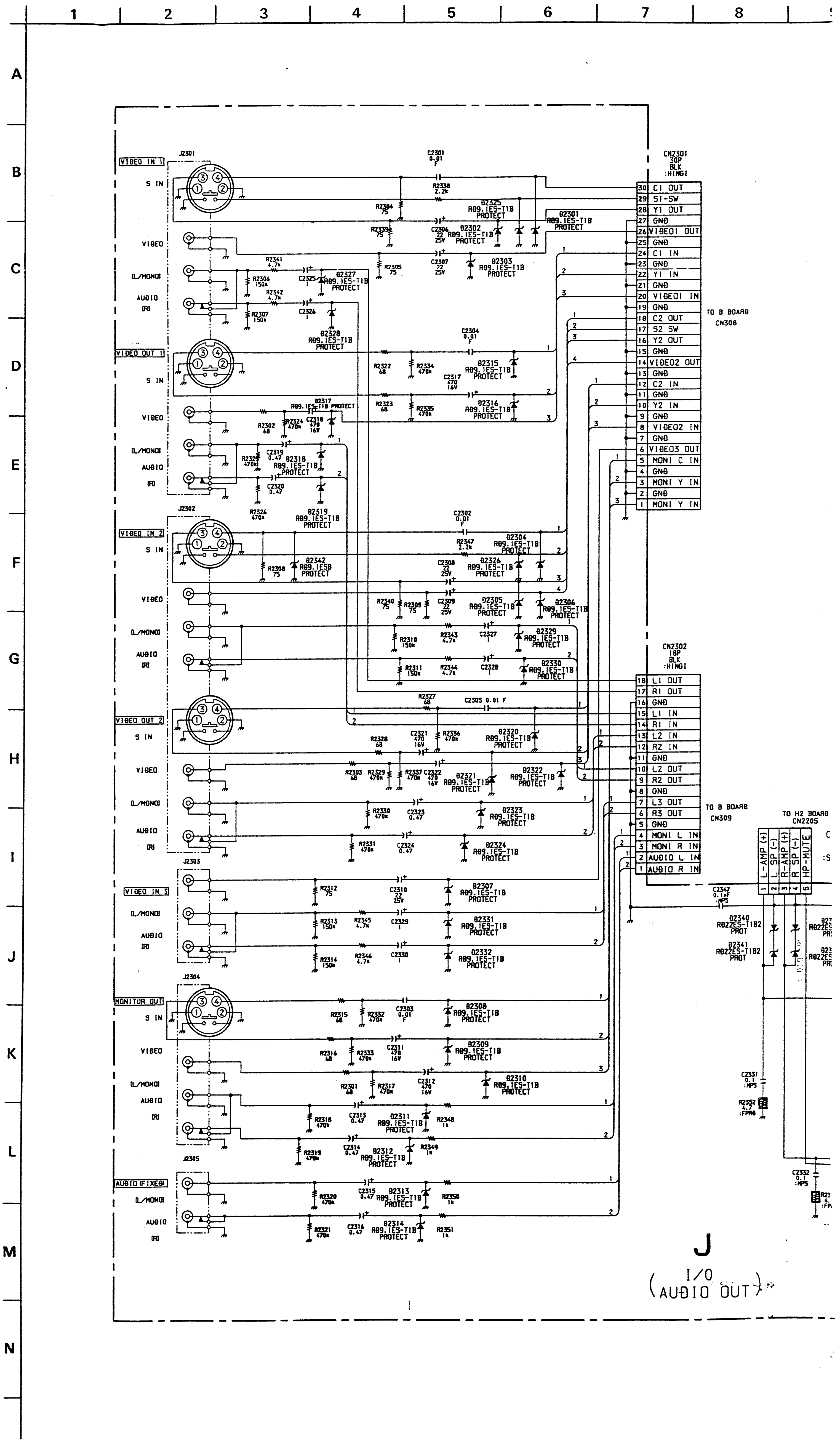
J [I/O AUDIO OUT]

—J Bord—


1
2
3
4
5
6
7
A
B
C
D
E
F
CN2302
CN2301
J2304
J2303
J2302
J2301
IC2300
IC2301
CN2311
CN2310
CN2308
CN2309
1-646-138-11
J
SONY



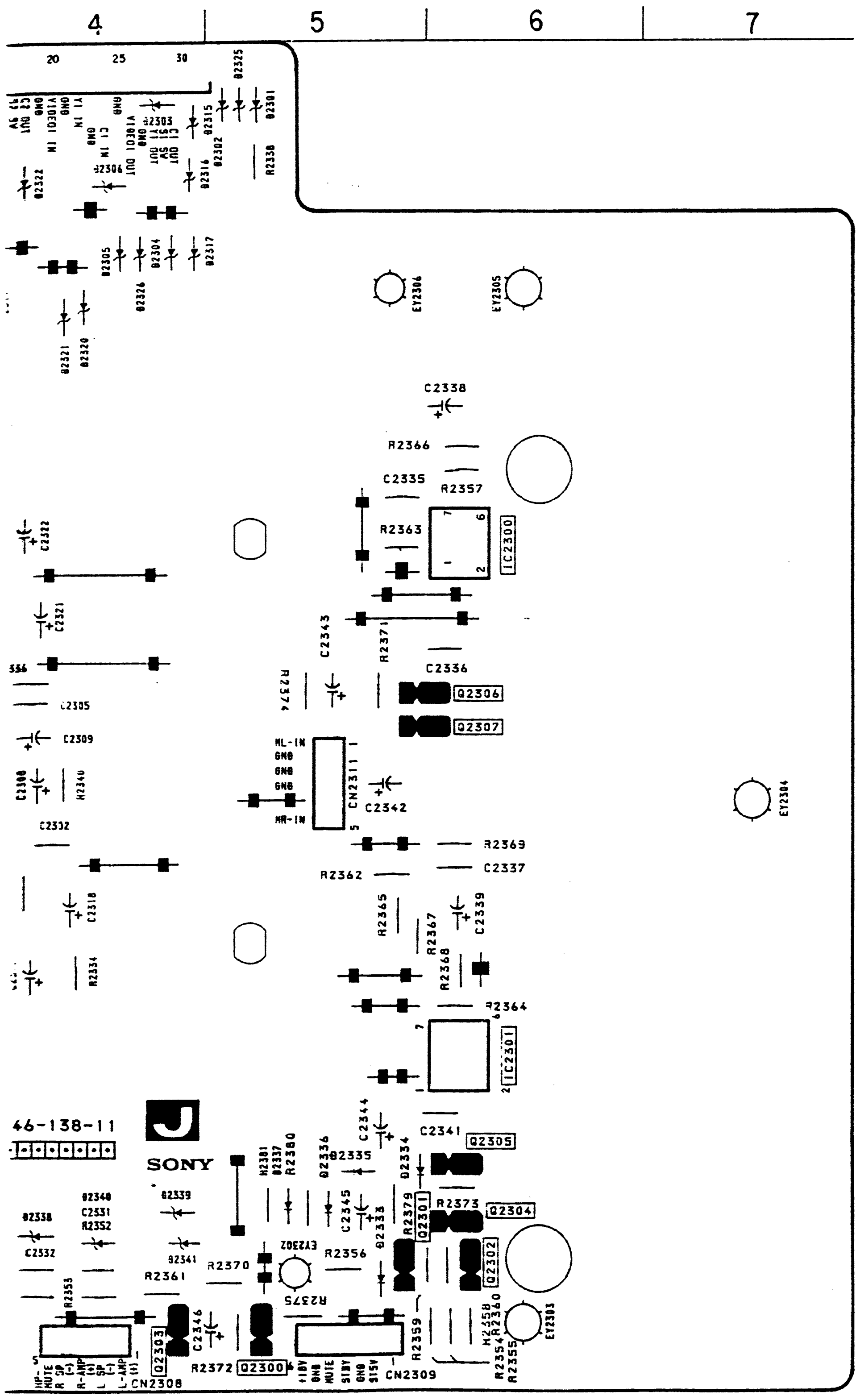
6
7
EY2305
R2357
IC2300
Q2306
Q2307
EY2304
R2369
C2337
C2339
R2364
IC2301
Q2305
Q2304
Q2302
EY2303

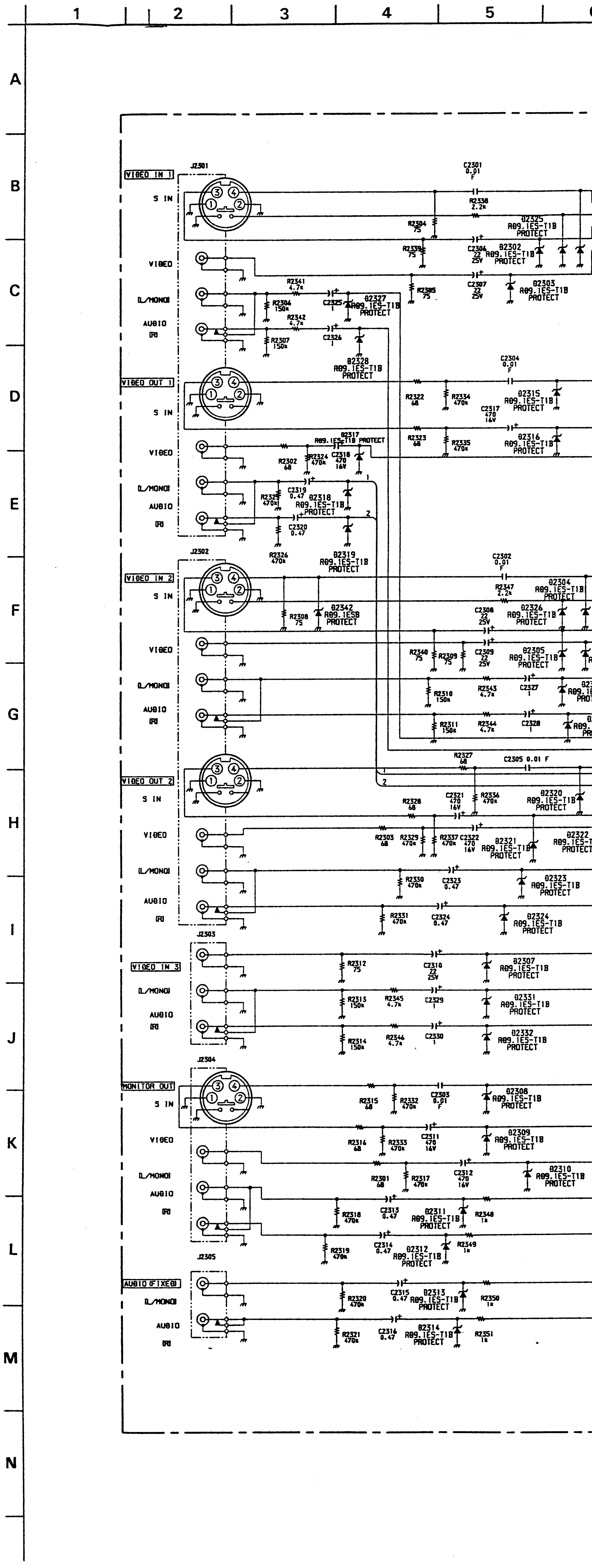


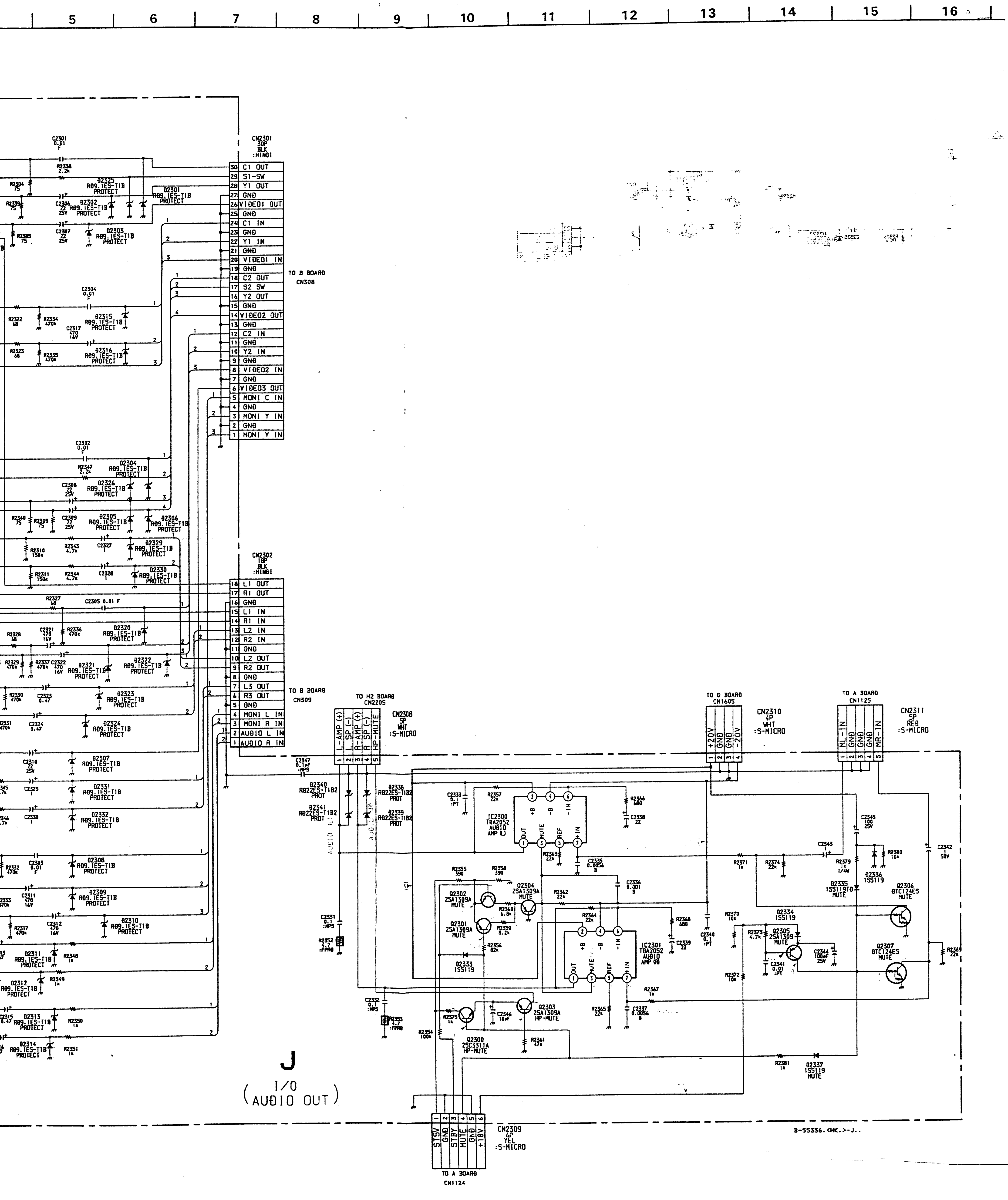
1
2
3
4
5
6
7
8
A
B
C
D
E
F
G
H
I
J
K
L
M
N
VIDEO IN 1
S IN
VIDEO
(L/MONO)
AUDIO
(R)
VIDEO OUT 1
VIDEO IN 2
VIDEO OUT 2
VIDEO IN 3
MONITOR OUT
AUDIO (FIXED)
J2301
J2302
J2303
J2304
J2305
PROTECT
CN2301
30P
BLK
:HINGI
30 C1 OUT
29 S1-SW
28 Y1 OUT
27 GND
26 VIDEO1 OUT
25 GND
24 C1 IN
23 GND
22 Y1 IN
21 GND
20 VIDEO1 IN
19 GND
18 C2 OUT
17 S2 SW
16 Y2 OUT
15 GND
14 VIDEO2 OUT
13 GND
12 C2 IN
11 GND
10 Y2 IN
9 GND
8 VIDEO2 IN
7 GND
6 VIDEO3 OUT
5 MONI C IN
4 GND
3 MONI Y IN
2 GND
1 MONI Y IN
TO B BOARD
CN308
CN2302
18P
BLK
:HINGI
18 L1 OUT
17 R1 OUT
16 GND
15 L1 IN
14 R1 IN
13 L2 IN
12 R2 IN
11 GND
10 L2 OUT
9 R2 OUT
8 GND
7 L3 OUT
6 R3 OUT
5 GND
4 MONI L IN
3 MONI R IN
2 AUDIO L IN
1 AUDIO R IN
TO B BOARD
CN309
TO H2 BOARD
CN2205
L-AMP (+)
L SP (-)
R-AMP (+)
R SP (-)
HP-MUTE

J

I/O
(AUDIO OUT)

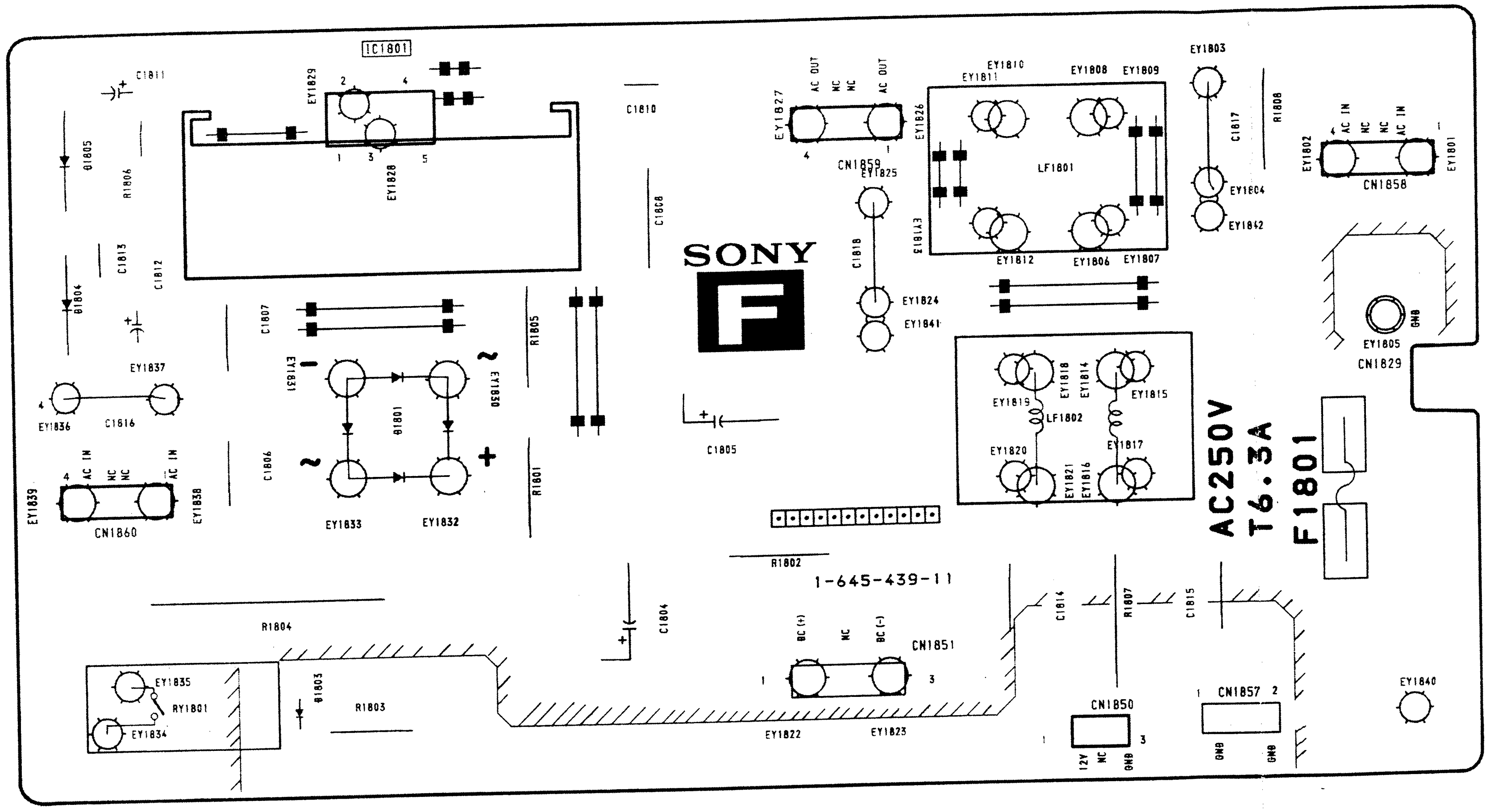

4
5
6
7
46-138-11
J
SONY
C2338
R2366
C2335
R2357
R2363
IC2300
C2343
R2371
R2374
C2336
Q2306
Q2307
CN2311
C2342
R2369
C2337
R2362
R2365
R2367
R2368
C2339
R2364
IC2301
C2344
C2341
Q2305
Q2335
Q2304
Q2301
Q2302
R2373
R2356
R2370
R2361
R2375
EY2302
EY2303
EY2304
EY2305
EY2306
Q2300
Q2303
R2372
C2346
R2359
CN2308
CN2309
C2305
C2309
C2332
C2321
C2322
C2318
R2334
R2340
Q2338
Q2340
C2331
R2352
C2332
R2353
Q2339
Q2341

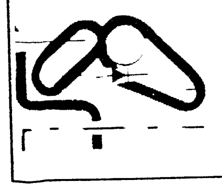

1
2
3
4
5
A
B
C
D
E
F
G
H
I
J
K
L
M
N
VIDEO IN 1
VIDEO OUT 1
VIDEO IN 2
VIDEO OUT 2
VIDEO IN 3
MONITOR OUT
AUDIO FIXED
S IN
VIDEO
L/MONO
AUDIO
(R)
J2301
J2302
J2303
J2304
J2305
C2301 0.01 F
R2338 2.2k
D2325 RD9.1ES-T1B PROTECT
D2302 RD9.1ES-T1B PROTECT
D2303 RD9.1ES-T1B PROTECT
D2327 RD9.1ES-T1B PROTECT
D2328 RD9.1ES-T1B PROTECT
C2304 0.01 F
D2315 RD9.1ES-T1B PROTECT
D2316 RD9.1ES-T1B PROTECT
D2317 RD9.1ES-T1B PROTECT
D2318 RD9.1ES-T1B PROTECT
D2319 RD9.1ES-T1B PROTECT
C2302 0.01 F
D2304 RD9.1ES-T1B PROTECT
D2342 RD9.1ESB PROTECT
D2326 RD9.1ES-T1B PROTECT
D2305 RD9.1ES-T1B PROTECT
C2305 0.01 F
D2320 RD9.1ES-T1B PROTECT
D2321 RD9.1ES-T1B PROTECT
D2322 RD9.1ES-T1B PROTECT
D2323 RD9.1ES-T1B
D2324 RD9.1ES-T1B PROTECT
D2307 RD9.1ES-T1B PROTECT
D2331 RD9.1ES-T1B PROTECT
D2332 RD9.1ES-T1B PROTECT
D2308 RD9.1ES-T1B PROTECT
D2309 RD9.1ES-T1B PROTECT
D2310 RD9.1ES-T1B PROTECT
D2311 RD9.1ES-T1B PROTECT
D2312 RD9.1ES-T1B PROTECT
D2313 RD9.1ES-T1B PROTECT
D2314 RD9.1ES-T1B PROTECT


5
6
7
8
9
10
11
12
13
14
15
16
CN2301
30P
BLK
:HINGI
30 C1 OUT
29 S1-SW
28 Y1 OUT
27 GND
26 VIDEO1 OUT
25 GND
24 C1 IN
23 GND
22 Y1 IN
21 GND
20 VIDEO1 IN
19 GND
18 C2 OUT
17 S2 SW
16 Y2 OUT
15 GND
14 VIDEO2 OUT
13 GND
12 C2 IN
11 GND
10 Y2 IN
9 GND
8 VIDEO2 IN
7 GND
6 VIDEO3 OUT
5 MONI C IN
4 GND
3 MONI Y IN
2 GND
1 MONI Y IN
TO B BOARD
CN308
CN2302
18P
BLK
:HINGI
18 L1 OUT
17 R1 OUT
16 GND
15 L1 IN
14 R1 IN
13 L2 IN
12 R2 IN
11 GND
10 L2 OUT
9 R2 OUT
8 GND
7 L3 OUT
6 R3 OUT
5 GND
4 MONI L IN
3 MONI R IN
2 AUDIO L IN
1 AUDIO R IN
TO B BOARD
CN309
TO H2 BOARD
CN2205
1 L-AMP (+)
2 L-SP (-)
3 R-AMP (+)
4 R-SP (-)
5 HP-MUTE
CN2308
5P
WHT
:S-MICRO
TO G BOARD
CN1605
1 +20V
2 GND
3 GND
4 -20V
CN2310
4P
WHT
:S-MICRO
TO A BOARD
CN1125
1 ML-IN
2 GND
3 GND
4 GND
5 MR-IN
CN2311
5P
RED
:S-MICRO
IC2300
TDA2052
AUDIO
AMP (L)
IC2301
TDA2052
AUDIO
AMP (R)
Q2300
2SC3311A
HP-MUTE
Q2301
2SA1309A
MUTE
Q2302
2SA1309A
MUTE
Q2303
2SA1309A
HP-MUTE
Q2304
2SA1309A
MUTE
Q2305
2SA1309
MUTE
Q2306
DTC124ES
MUTE
Q2307
DTC124ES
MUTE
D2333
1SS119
D2334
1SS119
D2335
1SS119TD
MUTE
D2336
1SS119
D2337
1SS119
MUTE
D2338
RD22ES-T1B2
PROT
D2339
RD22ES-T1B2
PROT
D2340
RD22ES-T1B2
PROT
D2341
RD22ES-T1B2
PROT
D2301
RD9.1ES-T1B
PROTECT
J
I/O
(AUDIO OUT)
1 ST5V
2 GND
3 STBY
4 MUTE
5 GND
6 +18V
CN2309
6P
YEL
:S-MICRO
TO A BOARD
CN1124
B-SS336.<HK.>-J..

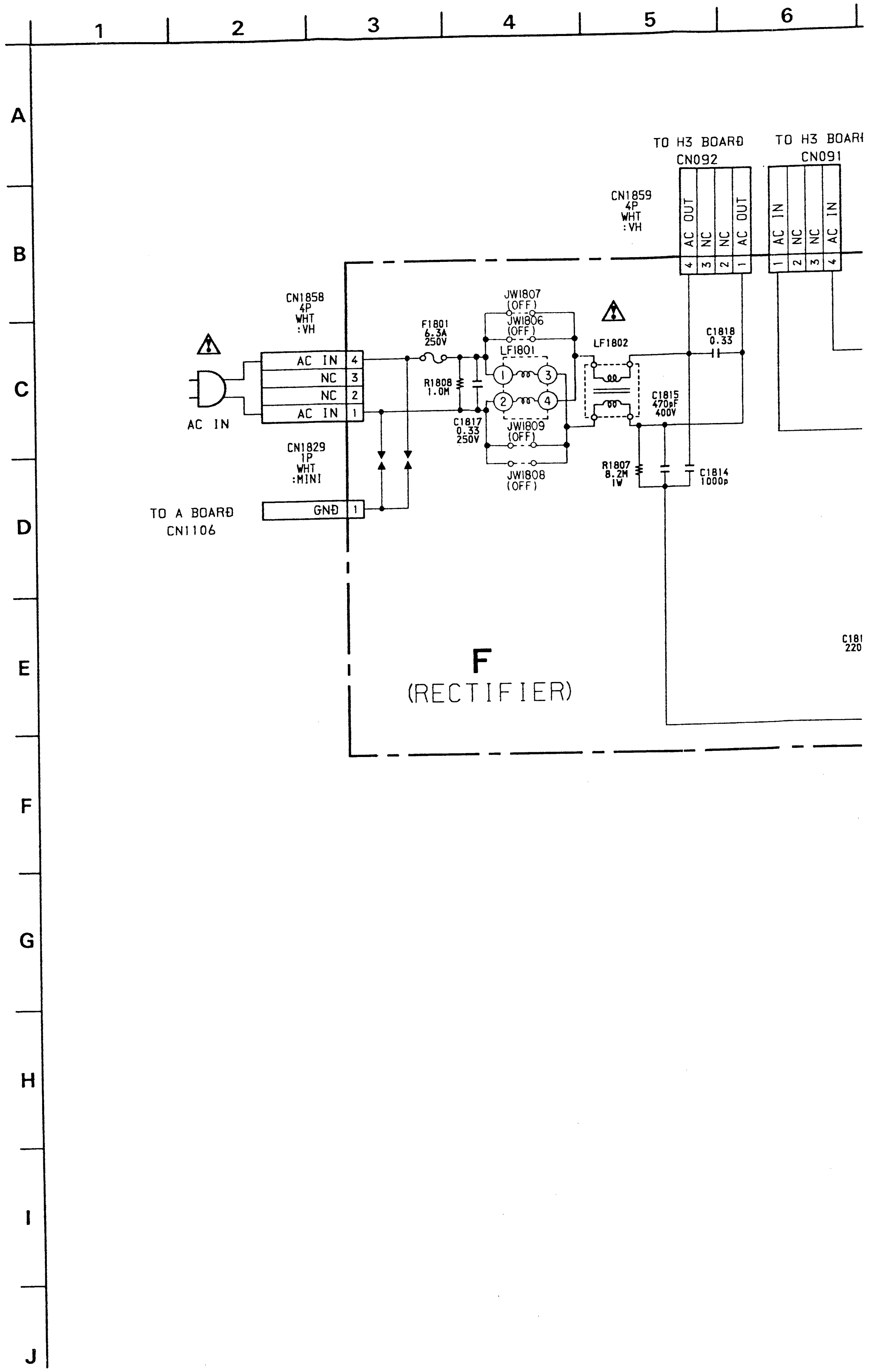
F [RECTIFIER]

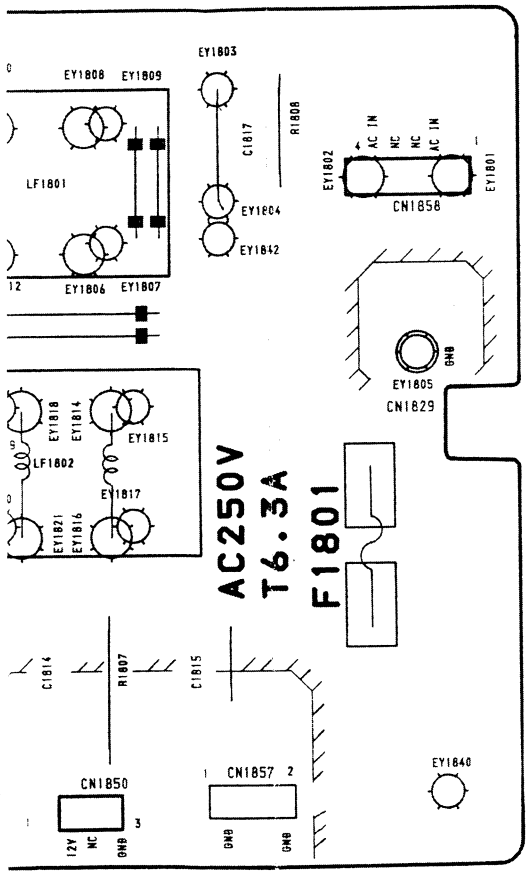
—F Board—

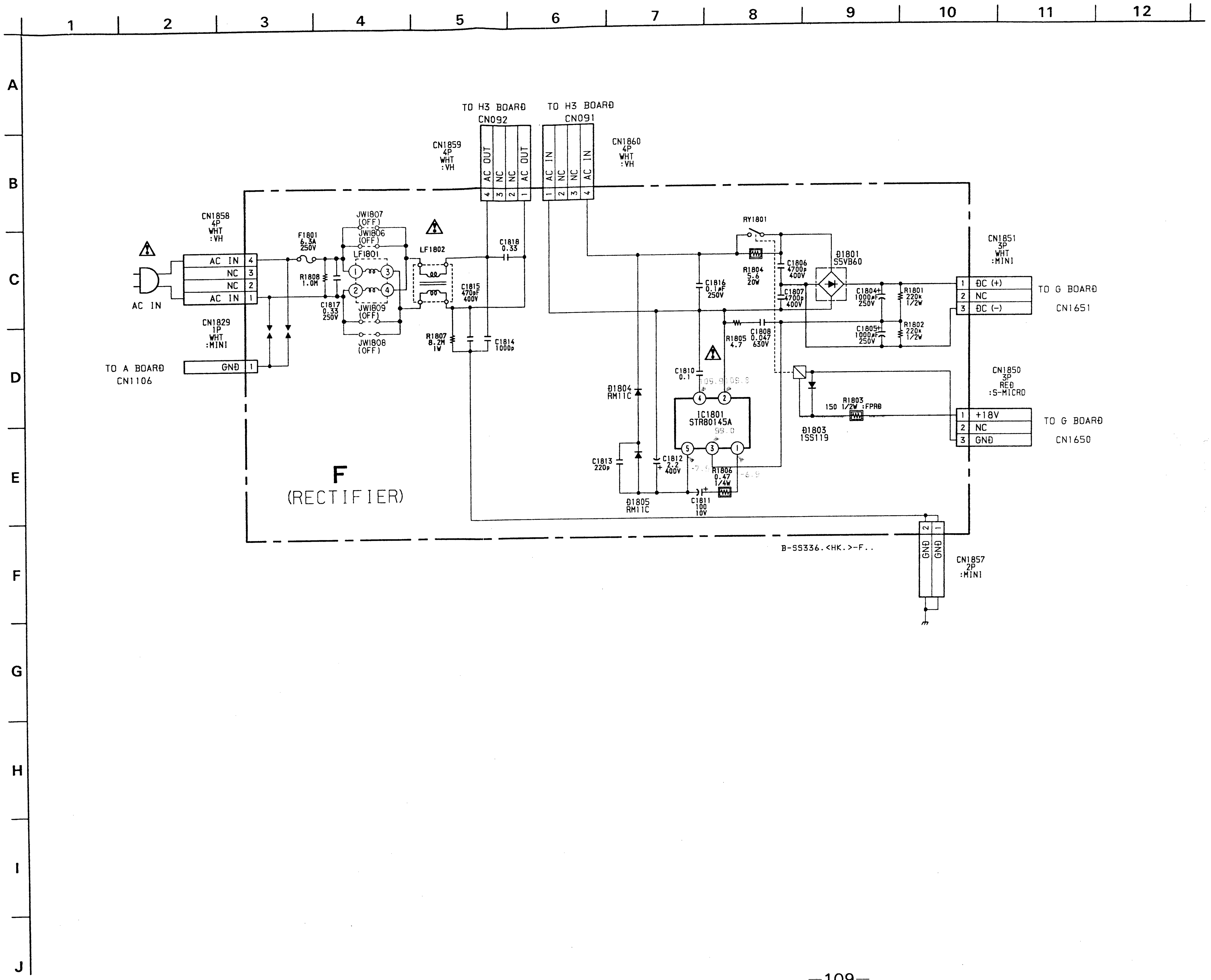

IC1801
C1811
C1810
C1808
SONY
F
EY1803
EY1810
EY1811
EY1808
EY1809
LF1801
EY1812
EY1806
EY1807
CN1859
EY1825
EY1827
AC OUT
NC
NC
AC OUT
CN1858
AC IN
NC
NC
AC IN
EY1804
EY1842
EY1805
CN1829
GND
EY1824
EY1841
EY1819
EY1818
EY1814
EY1815
LF1802
EY1820
EY1821
EY1816
EY1817
AC250V
T6.3A
F1801
EY1837
EY1836
C1816
CN1860
EY1839
EY1838
EY1831
EY1830
EY1833
EY1832
D1801
C1807
C1806
R1805
R1801
C1805
R1802
1-645-439-11
R1804
C1804
BC(+)
NC
BC(-)
CN1851
EY1822
EY1823
C1814
R1807
C1815
CN1850
12V
NC
GND
CN1857
EY1840
EY1835
RY1801
EY1834
D1803
R1803
D1805
R1806
D1804
C1813
C1812



NOTE:
The circuit indicated as left contains high voltage of over 600 Vp-p. Care must be paid to prevent an electric shock in inspection or repairing.


1
2
3
4
5
6
A
B
C
D
E
F
G
H
I
J
TO H3 BOARD
CN092
TO H3 BOARD
CN091
CN1859
4P
WHT
:VH
AC OUT
NC
NC
AC OUT
AC IN
NC
NC
AC IN
CN1858
4P
WHT
:VH
AC IN
NC
NC
AC IN
AC IN
F1801
6.3A
250V
R1808
1.0M
C1817
0.33
250V
JW1807
(OFF)
JW1806
(OFF)
LF1801
JW1809
(OFF)
JW1808
(OFF)
LF1802
C1818
0.33
C1815
470pF
400V
R1807
8.2M
1W
C1814
1000p
CN1829
1P
WHT
:MINI
GND
TO A BOARD
CN1106
F
(RECTIFIER)
C181
220


EY1803
EY1808
EY1809
LF1801
EY1806
EY1807
C1817
R1808
EY1804
EY1842
EY1802
AC IN
NC
NC
AC IN
CN1858
EY1801
EY1805
CN1829
EY1818
EY1814
EY1815
LF1802
EY1817
EY1821
EY1816
AC250V
T6.3A
F1801
C1814
R1807
C1815
CN1850
CN1857
EY1840
12V
NC
GND
GND
GND


1
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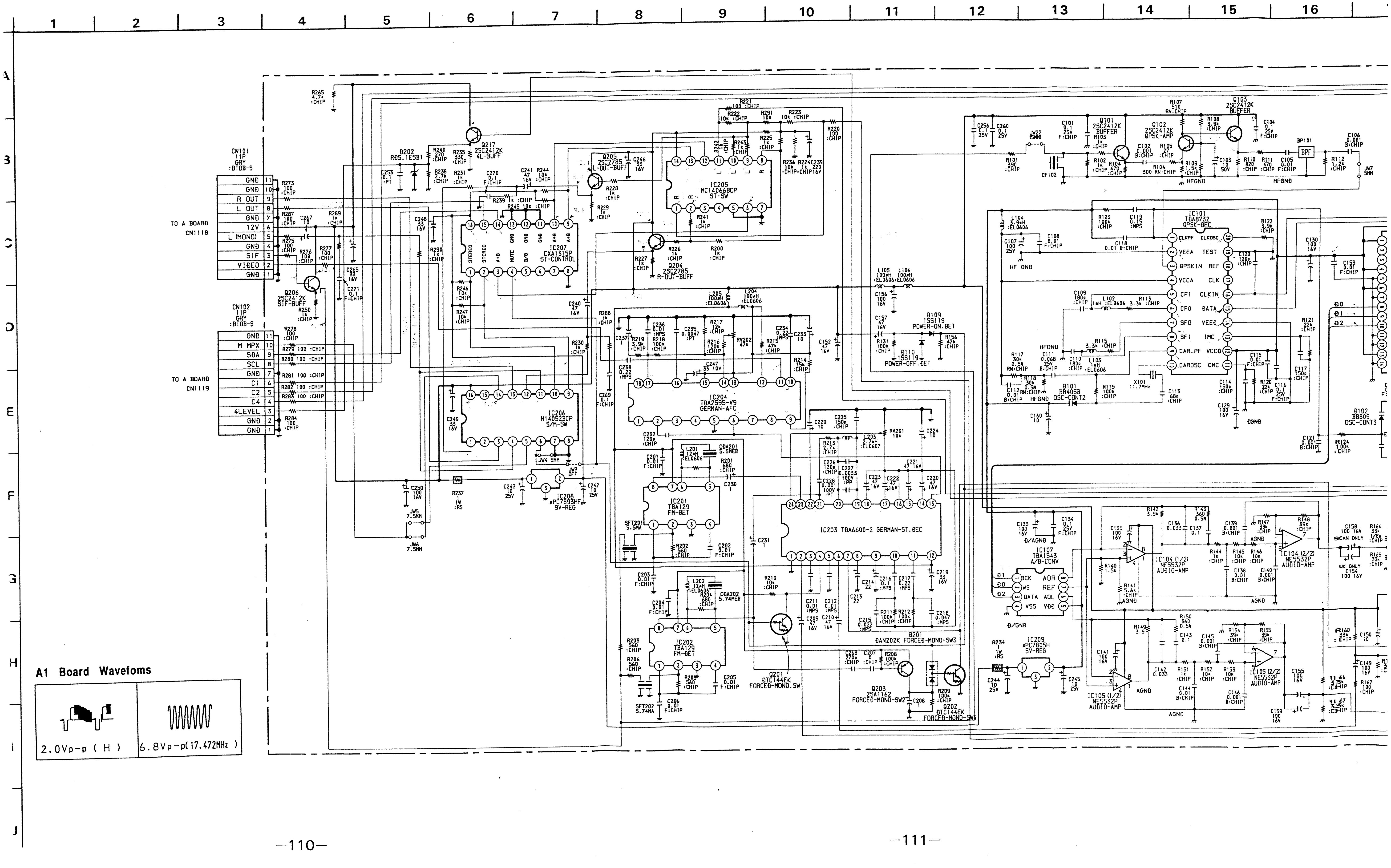
11
12
A
B
C
D
E
F
G
H
I
J
TO H3 BOARD
CN092
TO H3 BOARD
CN091
CN1859
4P
WHT
:VH
AC OUT
NC
NC
AC OUT
AC IN
NC
NC
AC IN
CN1860
4P
WHT
:VH
CN1858
4P
WHT
:VH
AC IN
NC
NC
AC IN
AC IN
F1801
6.3A
250V
R1808
1.0M
C1817
0.33
250V
JW1807
(OFF)
JW1806
(OFF)
LF1801
JW1809
(OFF)
JW1808
(OFF)
LF1802
C1818
0.33
C1815
470pF
400V
R1807
8.2M
1W
C1814
1000p
CN1829
1P
WHT
:MINI
TO A BOARD
CN1106
GND
RY1801
R1804
5.6
20W
C1806
4700p
400V
C1807
4700p
400V
D1801
S5VB60
C1816
0.1μF
250V
C1804
1000μF
250V
R1801
220k
1/2W
C1805
1000μF
250V
R1802
220k
1/2W
R1805
4.7
C1808
0.047
630V
C1810
0.1
D1804
RM11C
IC1801
STR80145A
C1813
220p
C1812
2.2
400V
R1806
0.47
1/4W
D1805
RM11C
C1811
100
10V
R1803
150 1/2W :FPRD
D1803
1SS119
CN1851
3P
WHT
:MINI
DC (+)
NC
DC (-)
TO G BOARD
CN1651
CN1850
3P
RED
:S-MICRO
+18V
NC
GND
TO G BOARD
CN1650
CN1857
2P
:MINI
GND
GND
F
(RECTIFIER)
B-SS336.<HK.>-F..


1
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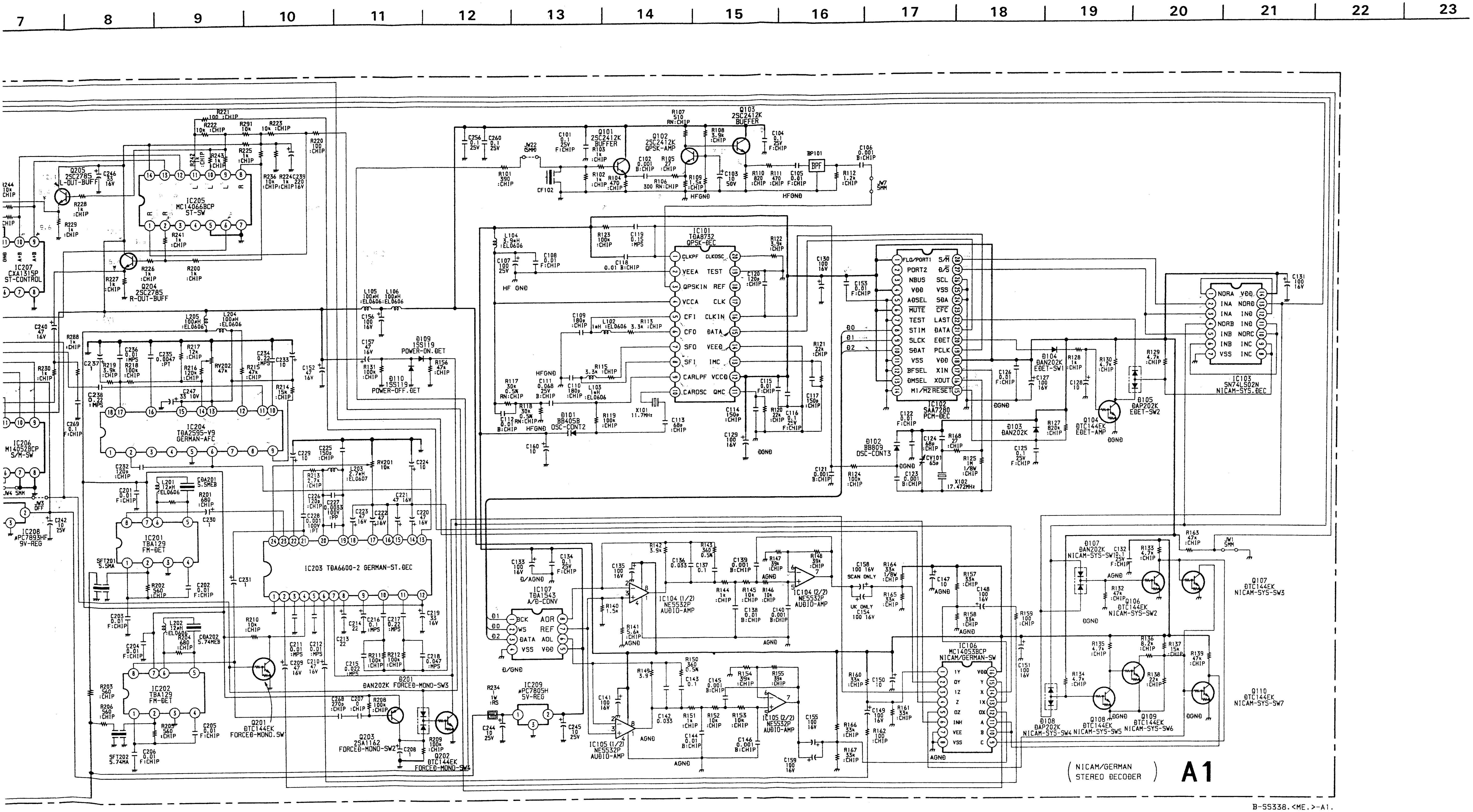
11
12
13
14
15
16
A
B
C
D
E
F
G
H
I
J
CN101
11P
GRY
:BTOB-S
GND
GND
R OUT
L OUT
GND
12V
L (MONO)
GND
SIF
VIDEO
GND
TO A BOARD
CN1118
CN102
11P
GRY
:BTOB-S
GND
M MPX
SDA
SCL
GND
C1
C2
C4
4LEVEL
GND
GND
TO A BOARD
CN1119
Q217
2SC2412K
4L-BUFF
D202
RD5.1ESB1
Q205
2SC2785
L-OUT-BUFF
Q204
2SC2785
R-OUT-BUFF
Q206
2SC2412K
SIF-BUFF
IC205
MC14066BCP
ST-SW
IC207
CXA1315P
ST-CONTROL
STEREO
MUTE
IC206
M14052BCP
S/H-SW
IC208
μPC7893HF
5V-REG
IC204
TDA2595-V9
GERMAN-AFC
IC201
TBA129
FM-DET
IC202
TBA129
FM-DET
IC203 TDA6600-2 GERMAN-ST.DEC
Q201
DTC144EK
FORCED-MONO.SW
Q203
2SA1162
FORCED-MONO-SW2
Q202
DTC144EK
FORCED-MONO-SW3
D201
DAN202K FORCED-MONO-SW3
D109
1SS119
POWER-ON.DET
D110
1SS119
POWER-OFF.DET
Q101
2SC2412K
BUFFER
Q102
2SC2412K
QPSK-AMP
Q103
2SC2412K
BUFFER
BP101
BPF
HFGND
IC101
TDA8732
QPSK-DEC
CLKPF
CLKOSC
VEEA
TEST
QPSKIN
REF
VCCA
CLK
CFI
CLKIN
CFO
DATA
SFO
VEED
SFI
IMC
CARLPF
VCCD
CARDSC
QMC
X101
11.7MHz
D101
BB405B
OSC-CONT2
D102
BB809
OSC-CONT3
D0
D1
D2
IC107
TDA1543
A/D-CONV
BCK
AOR
WS
REF
DATA
AOL
VSS
VDD
D/AGND
D/GND
IC209
μPC7805H
5V-REG
IC104 (1/2)
NE5532P
AUDIO-AMP
IC104 (2/2)
NE5532P
AUDIO-AMP
IC105 (1/2)
NE5532P
AUDIO-AMP
IC105 (2/2)
NE5532P
AUDIO-AMP
AGND
SCAN ONLY
UK ONLY
JW4 5MM
JW5 7.5MM
JW6 7.5MM
SFT201 5.5MA
SFT202 5.74MA
CDA201 5.5MEB
CDA202 5.74MEB
A1 Board Wavefoms
2.0Vp-p (H)
6.8Vp-p(17.472MHz)

KPR-S46MN1/S53MN1
RM-821


7
8
9
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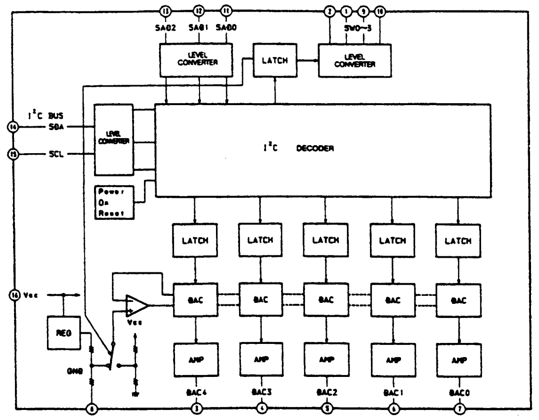
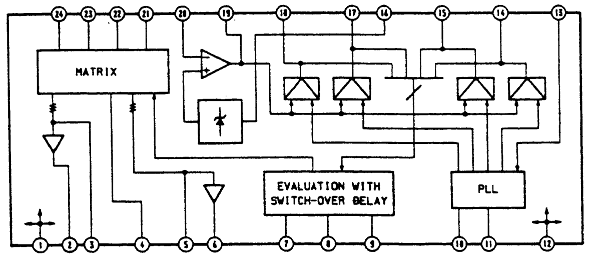
12
13
14
15
16
17
18
19
20
21
22
23
Q205 2SC2785 L-OUT-BUFF
IC205 MC14066BCP ST-SW
IC207 CXA1315P ST-CONTROL
Q204 2SC2785 R-OUT-BUFF
IC206 M14052BCP S/M-SW
IC208 μPC7893HF 9V-REG
IC204 TDA2595-V9 GERMAN-AFC
IC201 TBA129 FM-DET
IC202 TBA129 FM-DET
IC203 TDA6600-2 GERMAN-ST.DEC
Q201 DTC144EK FORCED-MONO.SW
Q203 2SA1162 FORCED-MONO-SW2
D201 DAN202K FORCED-MONO-SW3
Q202 DTC144EK FORCED-MONO-SW
D109 1SS119 POWER-ON.DET
D110 1SS119 POWER-OFF.DET
Q101 2SC2412K BUFFER
Q102 2SC2412K QPSK-AMP
Q103 2SC2412K BUFFER
BPF
IC101 TDA8732 QPSK-DEC
D101 BB405B OSC-CONT2
X101 11.7MHz
IC102 SAA7280 PCM-DEC
D102 BB809 OSC-CONT3
X102 17.472MHz
D103 DAN202K
D104 DAN202K EDET-SW1
D105 DAP202K EDET-SW2
Q104 DTC144EK EDET-AMP
IC103 SN74LS02N NICAM-SYS.DEC
IC107 TDA1543 A/D-CONV
IC209 μPC7805H 5V-REG
IC104 (1/2) NE5532P AUDIO-AMP
IC104 (2/2) NE5532P AUDIO-AMP
IC105 (1/2) NE5532P AUDIO-AMP
IC105 (2/2) NE5532P AUDIO-AMP
IC106 MC14053BCP NICAM/GERMAN-SW
D107 DAN202K NICAM-SYS-SW1
Q106 DTC144EK NICAM-SYS-SW2
Q107 DTC144EK NICAM-SYS-SW3
D108 DAP202K NICAM-SYS-SW4
Q108 DTC144EK NICAM-SYS-SW5
Q109 DTC144EK NICAM-SYS-SW6
Q110 DTC144EK NICAM-SYS-SW7
HFGND
AGND
DGND
(NICAM/GERMAN STEREO DECODER) A1

B-SS338.<ME.>-A1.

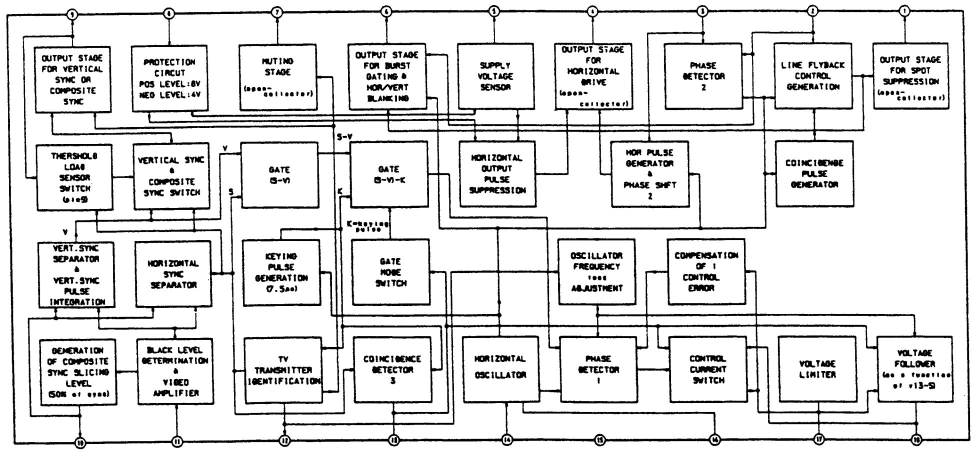
A1 Board IC207 CXA1315P


13
12
11
2
1
9
10
SA02
SA01
SA00
SW0~3
LEVEL CONVERTER
LATCH
LEVEL CONVERTER
I²C BUS
14
SDA
15
SCL
LEVEL CONVERTER
I²C DECODER
Power On Reset
LATCH
LATCH
LATCH
LATCH
LATCH
16
Vcc
REG
Vcc
DAC
DAC
DAC
DAC
DAC
GND
AMP
AMP
AMP
AMP
AMP
DAC4
DAC3
DAC2
DAC1
DAC0
8
3
4
5
6
7

A1 Board IC203 TDA6600-2

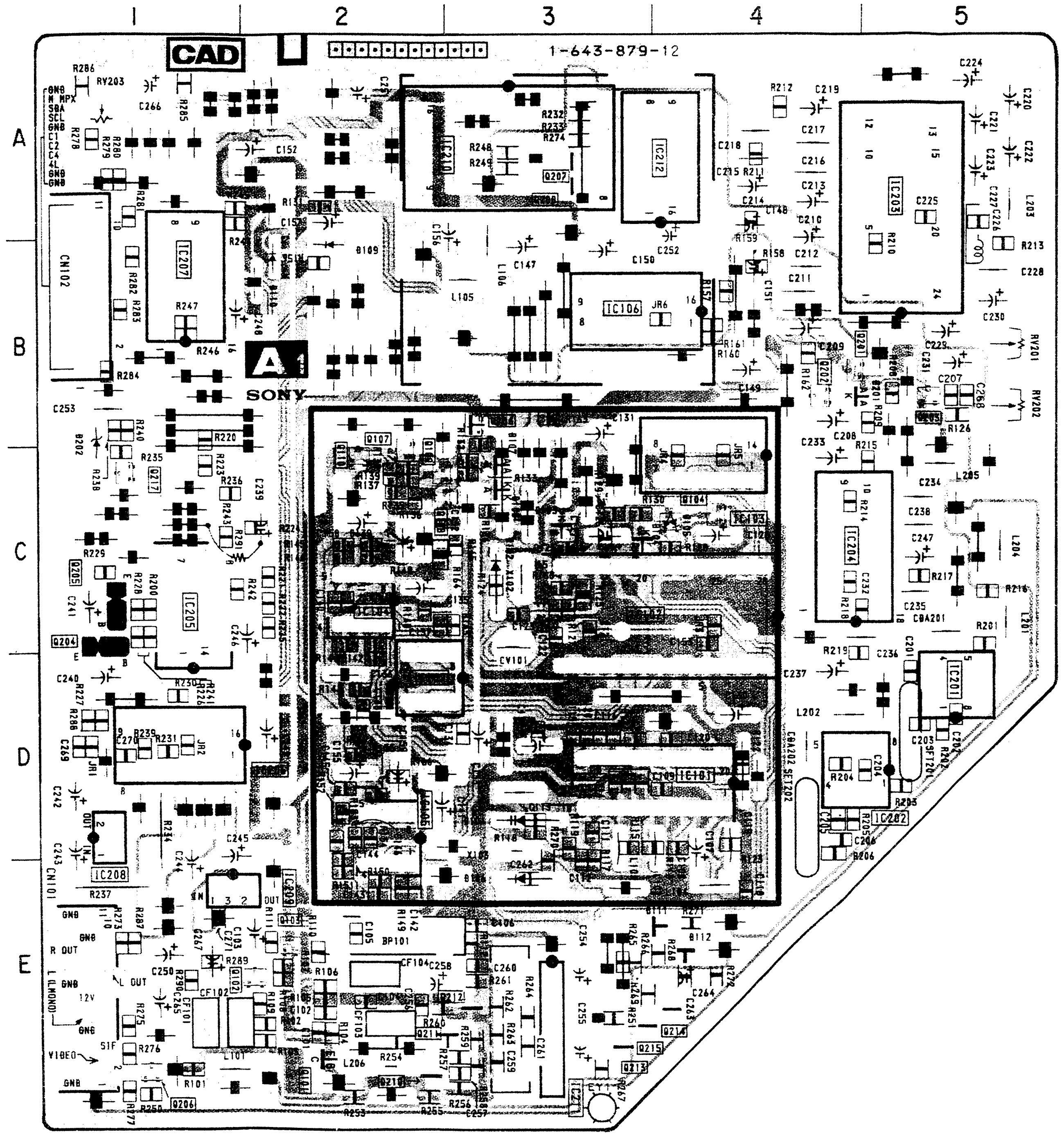

24
23
22
21
20
19
18
17
16
15
14
13
MATRIX
EVALUATION WITH SWITCH-OVER DELAY
PLL
1
2
3
4
5
6
7
8
9
10
11
12

A1 Board IC204 TDA2595-V9


9
8
7
6
5
4
3
2
1
OUTPUT STAGE FOR VERTICAL SYNC OR COMPOSITE SYNC
PROTECTION CIRCUT POS LEVEL:8V NEG LEVEL:4V
MUTING STAGE (open-collector)
OUTPUT STAGE FOR BURST GATING & HOR/VERT BLANKING
SUPPLY VOLTAGE SENSOR
OUTPUT STAGE FOR HORIZONTAL DRIVE (open-collector)
PHASE DETECTOR 2
LINE FLYBACK CONTROL GENERATION
OUTPUT STAGE FOR SPOT SUPPRESSION (open-collector)
THERSHOLD LOAD SENSOR SWITCH
VERTICAL SYNC & COMPOSITE SYNC SWITCH
V
GATE (S-V)
S-V
GATE (S-V)-K
HORIZONTAL OUTPUT PULSE SUPPRESSION
HOR PULSE GENERATOR & PHASE SHFT 2
COINCIDENCE PULSE GENERATOR
S
K
V
K=keying pulse
VERT. SYNC SEPARATOR & VERT. SYNC PULSE INTEGRATION
HORIZONTAL SYNC SEPARATOR
KEYING PULSE GENERATION (7.5μs)
GATE MODE SWITCH
OSCILLATOR FREQUENCY ADJUSTMENT
COMPENSATION OF I CONTROL ERROR
GENERATION OF COMPOSITE SYNC SLICING LEVEL (50% of sync)
BLACK LEVEL DETERMINATION & VIDEO AMPLIFIER
TV TRANSMITTER IDENTIFICATION
COINCIDENCE DETECTOR 3
HORIZONTAL OSCILLATOR
PHASE DETECTOR 1
CONTROL CURRENT SWITCH
VOLTAGE LIMITER
VOLTAGE FOLLOWER (as a function of v13-5)
10
11
12
13
14
15
16
17
18

A1 [NICAM/GERMAN STEREO DECODER]

—A1 Board—


1
2
3
4
5
A
B
C
D
E
CAD
1-643-879-12
SONY
A1
CN102
CN101
IC101
IC106
IC161
IC201
IC202
IC203
IC204
IC205
IC207
IC208
IC210
IC212
GND
M MPX
SDA
SCL
R OUT
L OUT
12V
VIDEO
SIF
RV201
RV202

○ : Pattern from the side which enables seeing.

● ▨ : Pattern of the rear side.

A1 Board

IC	
IC101	D-3
102	C-3
103	C-4
104	C-2
105	D-2
106	B-3
107	D-2
201	D-5
202	D-4
203	A-5
204	C-4
205	C-1
206	D-1
207	B-1
208	D-1
209	E-1

TRANSISTOR	
Q101	E-2
102	E-2
103	E-2
104	C-4
106	B-3
107	C-2
108	C-2
109	C-2
110	C-2
201	B-4
202	B-4
203	B-5
204	C-1
205	C-1
206	F-1
217	C-1

DIODE	
D101	D-3
102	C-3
103	C-3
104	C-3
105	C-3
107	C-3
108	C-3
109	B-2
110	B-2
201	B-4
202	B-1

VARIARBLE RESISTOR	
RV201	B-5
202	B-5

BP Board

IC	
IC3301	C-1
3302	Đ-6
3303	Đ-7
3304	C-2
3306	B-5
3307	A-3
3308	A-2
3309	B-6
3310	B-7
3311	C-7
3312	C-1
3313	A-4

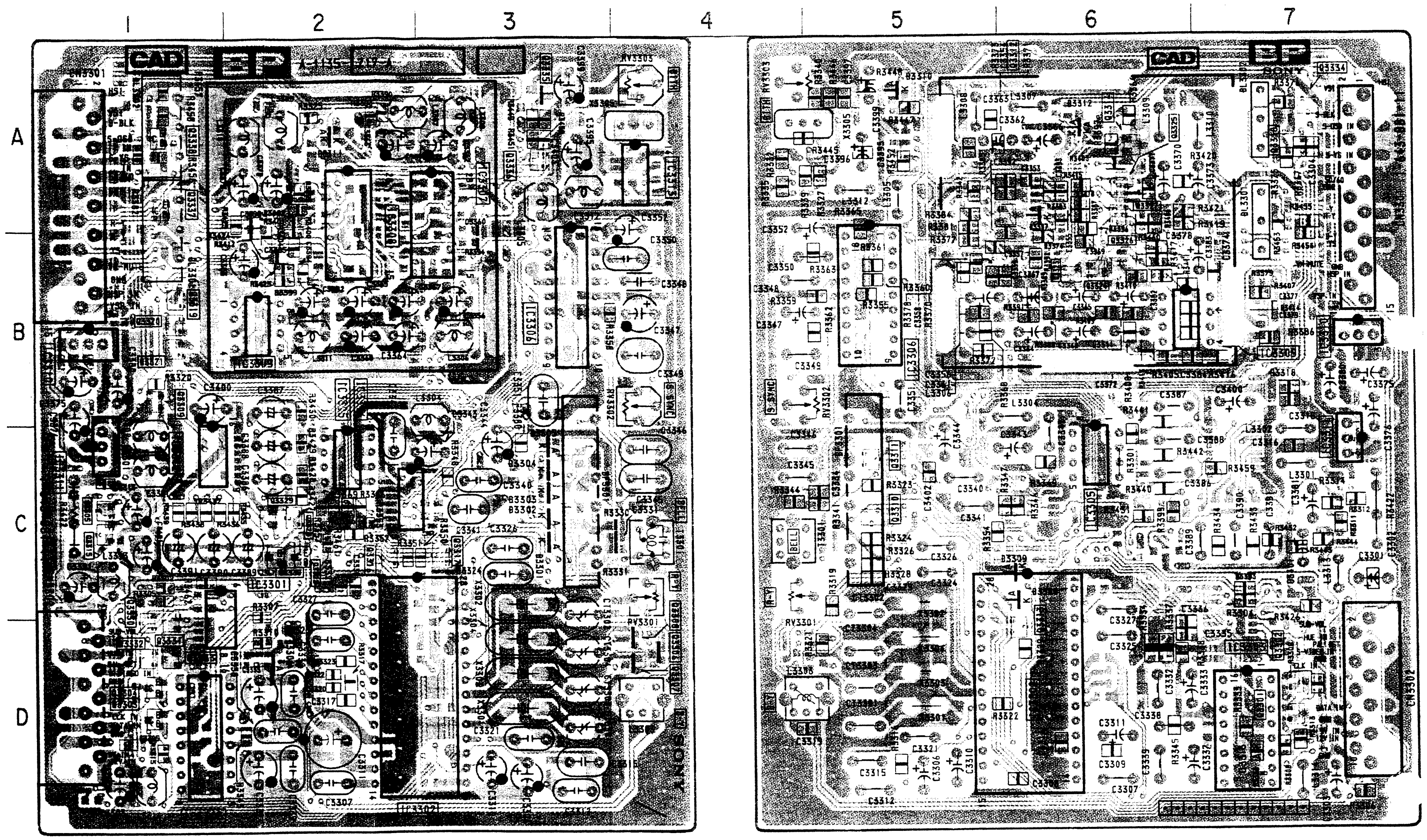
ĐIOĐE	
Đ3301	C-3
3302	C-3
3303	C-3
3304	C-3
3305	C-3
3306	Đ-2
3307	A-6
3308	C-6
3309	C-6
3310	A-5
3311	A-2
3312	A-6
3313	Đ-7

TRANSISTOR	
Q3301	Đ-7
3302	Đ-7
3303	Đ-1
3304	Đ-1
3305	C-1
3309	B-1
3310	C-5
3311	C-5
3312	A-6
3313	Đ-6
3314	A-6
3315	C-1
3316	C-2
3317	C-3
3318	A-7
3319	B-1
3320	B-1
3321	B-1
3322	C-2
3323	B-6
3324	B-6
3325	A-6
3326	B-6
3327	A-6
3328	C-2
3329	C-2
3330	Đ-1
3331	Đ-1
3332	Đ-1
3333	Đ-1
3334	A-7
3335	A-3
3336	A-3
3337	A-1
3338	A-1
3339	C-2

VARIARBLE RESISTOR	
RV3301	C-4
3302	B-5

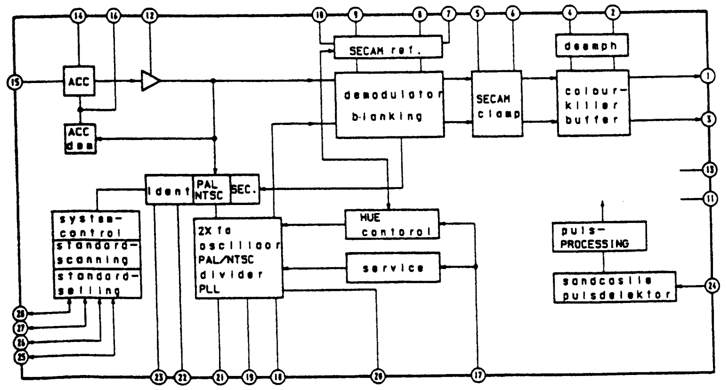
BP [PINP]

—BP Board—

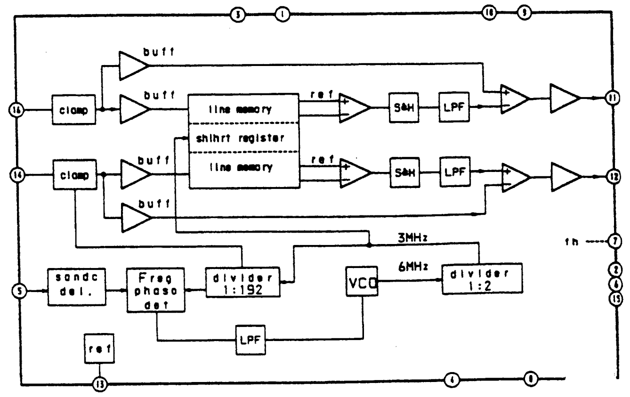

1
2
3
4
5
6
7
A
B
C
D
CAD
BP
SONY
CN3301
CN3302
RV3301
RV3302
IC3301
IC3302
IC3303
IC3304
IC3305
IC3306

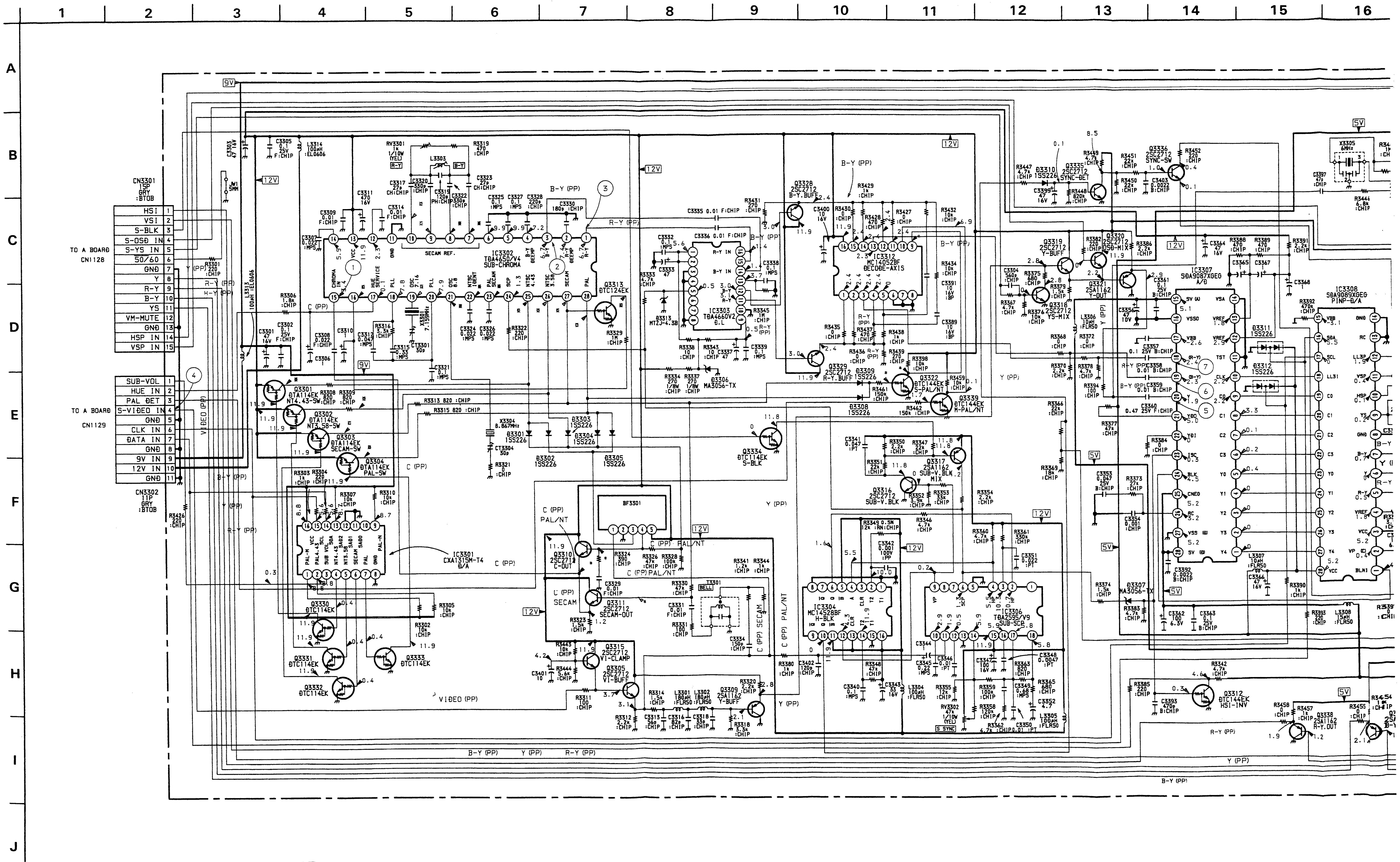
: Pattern from the side which enables seeing.
● ▨ : Pattern of the rear side.

BP Board IC3302 TDA4650-V4


SECAM ref.
deemph
ACC
ACC det
demodulator
blanking
SECAM
clamp
colour-
killer
buffer
ident
PAL
NTSC
SEC.
system-
control
standard-
scanning
standard-
setting
2X fo
oscillator
PAL/NTSC
divider
PLL
HUE
contorol
service
puls-
PROCESSING
sandcastle
pulsdelektor

BP Board IC3303 TDA4660-V2


buff
buff
buff
buff
clamp
clamp
line memory
shihrt register
line memory
ref
ref
S&H
S&H
LPF
LPF
3MHz
6MHz
fh
sandc
del.
Freq
phase
det
divider
1:192
VCO
divider
1:2
ref
LPF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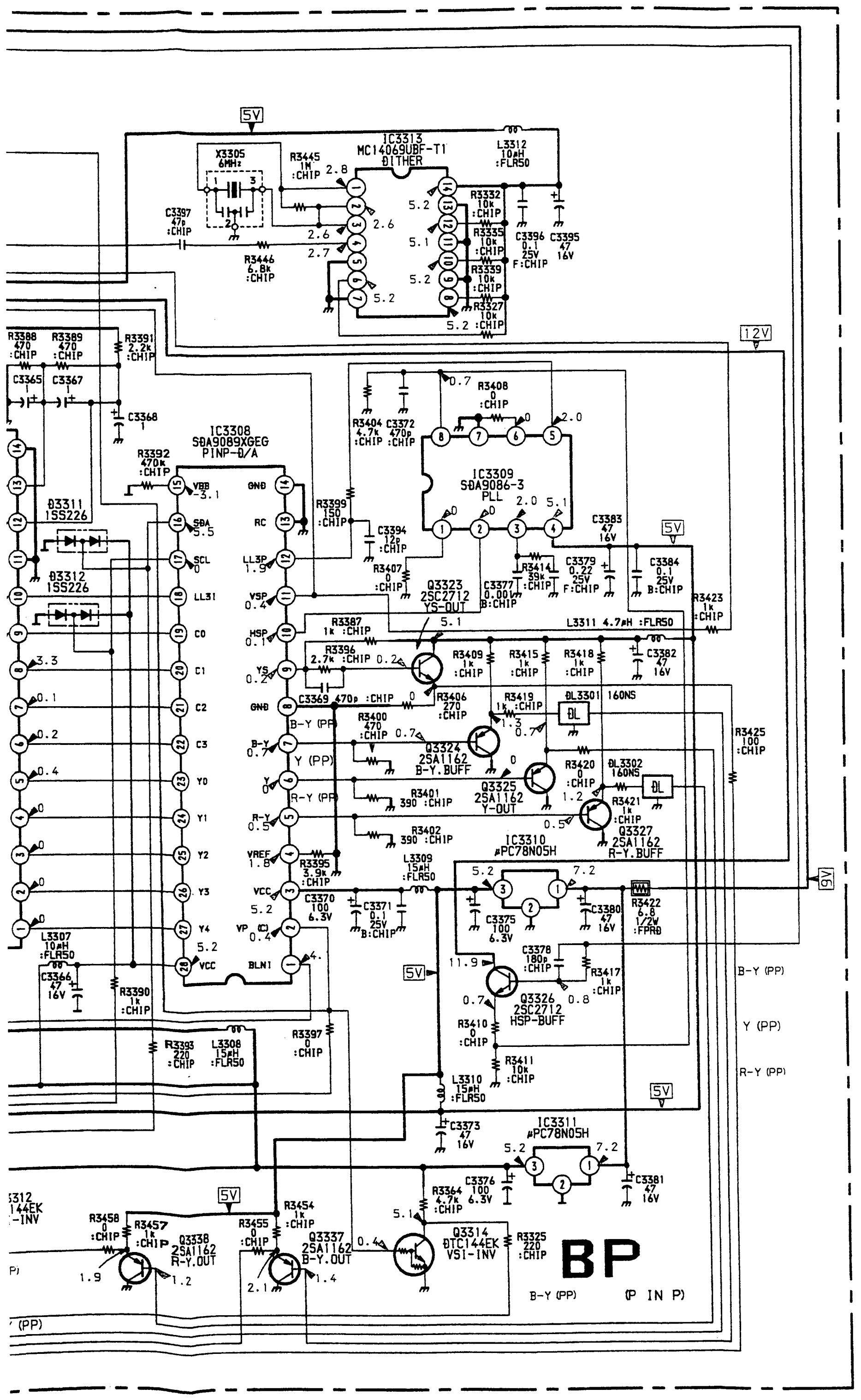
9
10
11
12
13
14
15
16
A
B
C
D
E
F
G
H
I
J
CN3301 15P GRY :BTOB
TO A BOARD CN1128
HSI
VSI
S-BLK
S-OSD IN
S-YS IN
50/60
GND
Y
R-Y
B-Y
YS
VM-MUTE
GND
HSP IN
VSP IN
TO A BOARD CN1129
SUB-VOL
HUE IN
PAL DET
S-VIDEO IN
GND
CLK IN
DATA IN
GND
9V IN
12V IN
GND
CN3302 11P GRY :BTOB
9V
12V
5V
IC3302 TDA4650/V4 SUB-CHROMA
SECAM REF.
IC3303 TDA4660V2 D.L
IC3312 MC14052BF DECODE-AXIS
IC3307 SDA9087XGEG A/D
IC3308 SDA9089XGEG PINP-D/A
IC3301 CXA1315M-T4 D/A
IC3304 MC14528BF H-BLK
IC3306 TDA2595/V9 SUB-SCP
BF3301
Q3301 DTA114EK NT4.43-SW
Q3302 DTA114EK NT3.58-SW
Q3303 DTA114EK SECAM-SW
Q3304 DTA114EK PAL-SW
Q3330 DTC114EK
Q3331 DTC114EK
Q3332 DTC114EK
Q3333 DTC114EK
Q3313 DTC124EK
Q3310 2SC2712 C-OUT
Q3311 2SC2712 SECAM-OUT
Q3315 2SC2712 V1-CLAMP
Q3305 2SC2712 V1-BUFF
Q3309 2SA1162 Y-BUFF
Q3328 2SC2712 B-Y.BUFF
Q3329 2SC2712 R-Y.BUFF
Q3322 DTC144EK S-PAL/NT
Q3339 DTC144EK M-PAL/NT
Q3334 DTC114EK S-BLK
Q3317 2SA1162 SUB-V.BLK MIX
Q3316 2SC2712 SUB-V.BLK
Q3319 2SC2712 Y-BUFF
Q3318 2SC2712 YS-MIX
Q3320 2SC2712 OSD-MIX
Q3321 2SA1162 Y-OUT
Q3335 2SC2712 SYNC-DET
Q3336 2SC2712 SYNC-SW
Q3312 DTC144EK HSI-INV
Q3338 2SA1162 R-Y.OUT
D3301 1SS226
D3302 1SS226
D3303 1SS226
D3304 1SS226
D3305 1SS226
D3306 MA3056-TX
D3307 MA3056-TX
D3308 1SS226
D3309 1SS226
D3310 1SS226
D3311 1SS226
D3312 1SS226
D3313 MTZJ-4.3B
X3301 7.159MHz
X3304 8.867MHz
X3305 6MHz
RV3301 1k 1/10W (YEL) R-Y
RV3302 47k 1/10W (YEL) S SYNC
L3303 B-Y
T3301 BELL
C (PP)
C (PP) PAL/NT
C (PP) SECAM
Y (PP)
B-Y (PP)
R-Y (PP)
VIDEO (PP)
①
②
③
④
⑤
⑥
⑦


IC3313
MC14069UBF-T1
DITHER
X3305 6MHz
IC3308
SDA9089XGEG
PINP-D/A
IC3309
SDA9086-3
PLL
Q3311 1SS226
Q3312 1SS226
Q3323 2SC2712 YS-OUT
Q3324 2SA1162 B-Y.BUFF
Q3325 2SA1162 Y-OUT
Q3327 2SA1162 R-Y.BUFF
Q3326 2SC2712 HSP-BUFF
IC3310 μPC78N05H
IC3311 μPC78N05H
Q3338 2SA1162 R-Y.OUT
Q3337 2SA1162 B-Y.OUT
Q3314 DTC144EK VS1-INV
5V
12V
9V
B-Y (PP)
Y (PP)
R-Y (PP)
BP
(P IN P)

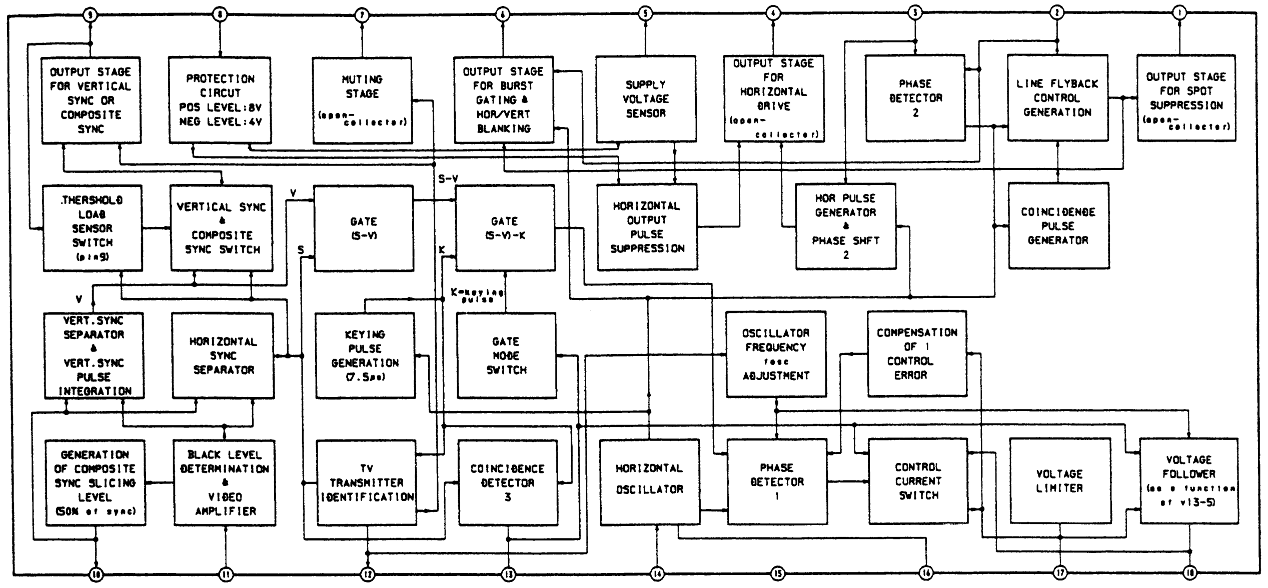
B-SS2959<ME.>-BP.

BP Board

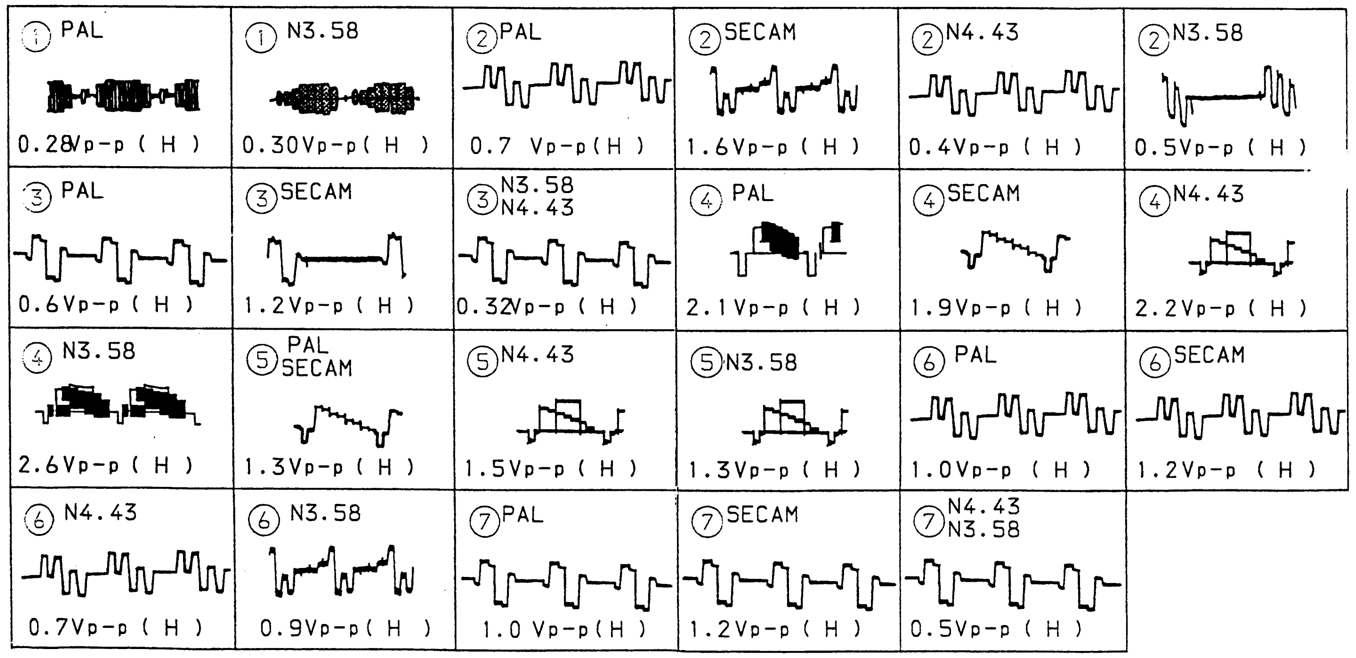
As to the voltage Value shown by the mark ※ on the Schematic Diagram, see the another list.

		PAL	SECAM	NTSC 4.43	NTSC 3.58
IC3302	⑦	*	3.5	4.8	4.9
	⑧	*	3.0	3.5	3.9
	⑨	*	3.0	3.5	3.9
	⑮	*	3.5	4.5	4.8
	⑯	8.2	7.0	8.1	8.2
	⑲	*	3.6	2.9	*
	㉑	*	3.6	*	3.2
	㉒	*	5.6	*	7.2
	㉓	*	*	5.5	5.7
	㉕	0.1	0.1	5.9	0.1
	㉖	0	0	0	5.9
	㉗	0.1	5.9	0.1	0.1
	㉘	5.9	0.1	0.1	0.1
IC3312	⑨	11.9	0.1	11.9	11.9
Q3301	(C)	0.1	0.1	5.9	0.1
Q3302	(C)	0	0	0	5.9
Q3303	(C)	0.1	5.9	0.1	0.1
Q3304	(C)	5.9	0.1	0.1	0.1
Q3313	(B)	0.1	5.9	0.1	0.1
	(C)	8.2	0	7.4	7.5
Q3322	(B)	1.7	1.7	0.1	0.1
	(C)	11.9	0.1	11.9	11.9

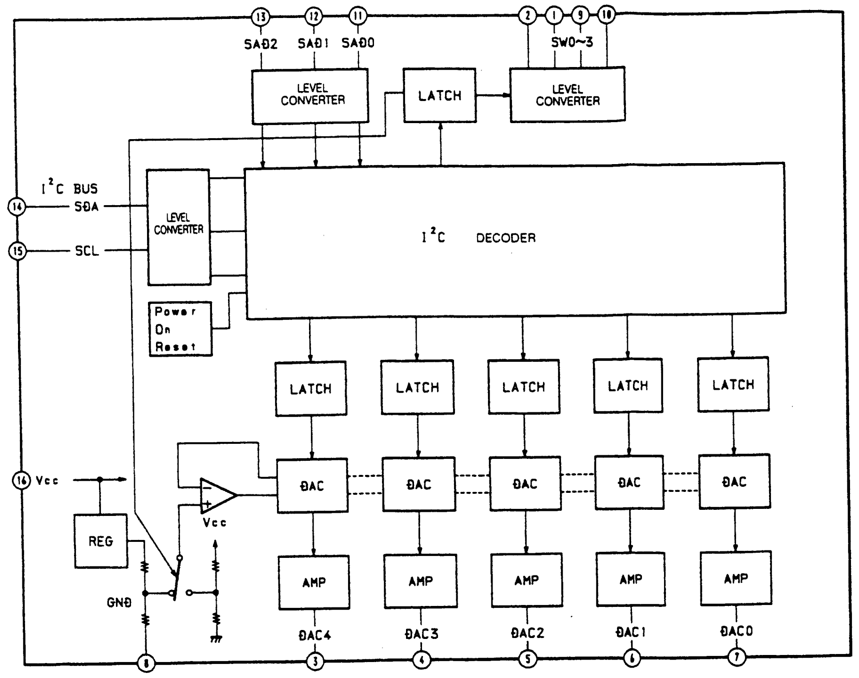
BP Board IC3306 TDA2595-V9


OUTPUT STAGE FOR VERTICAL SYNC OR COMPOSITE SYNC
PROTECTION CIRCUT POS LEVEL:8V NEG LEVEL:4V
MUTING STAGE (open-collector)
OUTPUT STAGE FOR BURST GATING & HOR/VERT BLANKING
SUPPLY VOLTAGE SENSOR
OUTPUT STAGE FOR HORIZONTAL DRIVE (open-collector)
PHASE DETECTOR 2
LINE FLYBACK CONTROL GENERATION
OUTPUT STAGE FOR SPOT SUPPRESSION (open-collector)
THERSHOLD LOAD SENSOR SWITCH (pin9)
VERTICAL SYNC & COMPOSITE SYNC SWITCH
GATE (S-V)
GATE (S-V)-K
HORIZONTAL OUTPUT PULSE SUPPRESSION
HOR PULSE GENERATOR & PHASE SHFT 2
COINCIDENCE PULSE GENERATOR
VERT. SYNC SEPARATOR & VERT. SYNC PULSE INTEGRATION
HORIZONTAL SYNC SEPARATOR
KEYING PULSE GENERATION (7.5μs)
GATE MODE SWITCH
OSCILLATOR FREQUENCY fosc ADJUSTMENT
COMPENSATION OF 1 CONTROL ERROR
GENERATION OF COMPOSITE SYNC SLICING LEVEL (50% of sync)
BLACK LEVEL DETERMINATION & VIDEO AMPLIFIER
TV TRANSMITTER IDENTIFICATION
COINCIDENCE DETECTOR 3
HORIZONTAL OSCILLATOR
PHASE DETECTOR 1
CONTROL CURRENT SWITCH
VOLTAGE LIMITER
VOLTAGE FOLLOWER (as a function of v13-5)
S-V
V
S
K
K=keying pulse
⑨ ⑧ ⑦ ⑥ ⑤ ④ ③ ② ①
⑩ ⑪ ⑫ ⑬ ⑭ ⑮ ⑯ ⑰ ⑱

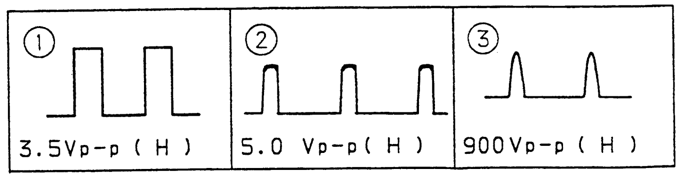
BP Board Waveforms

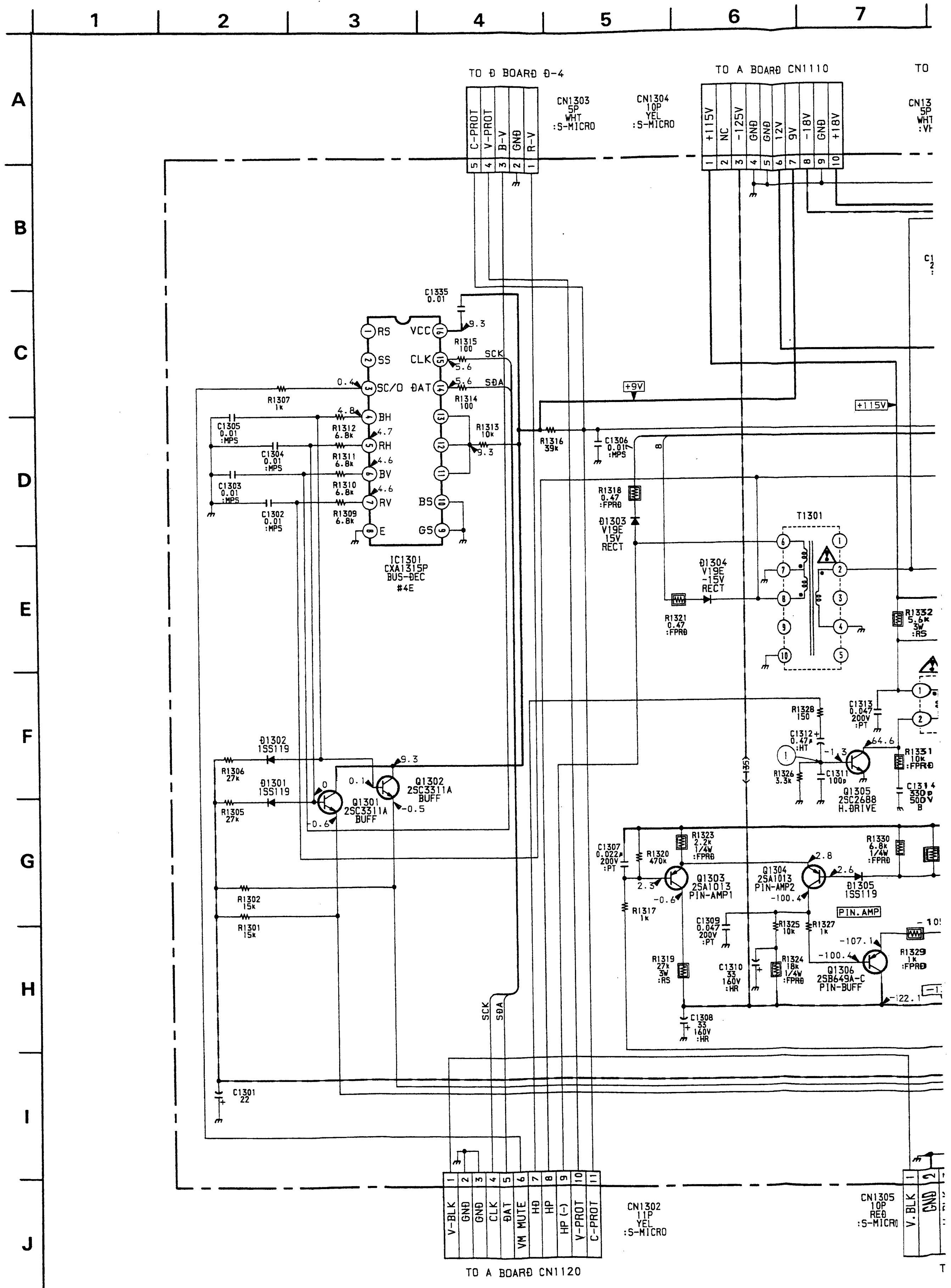


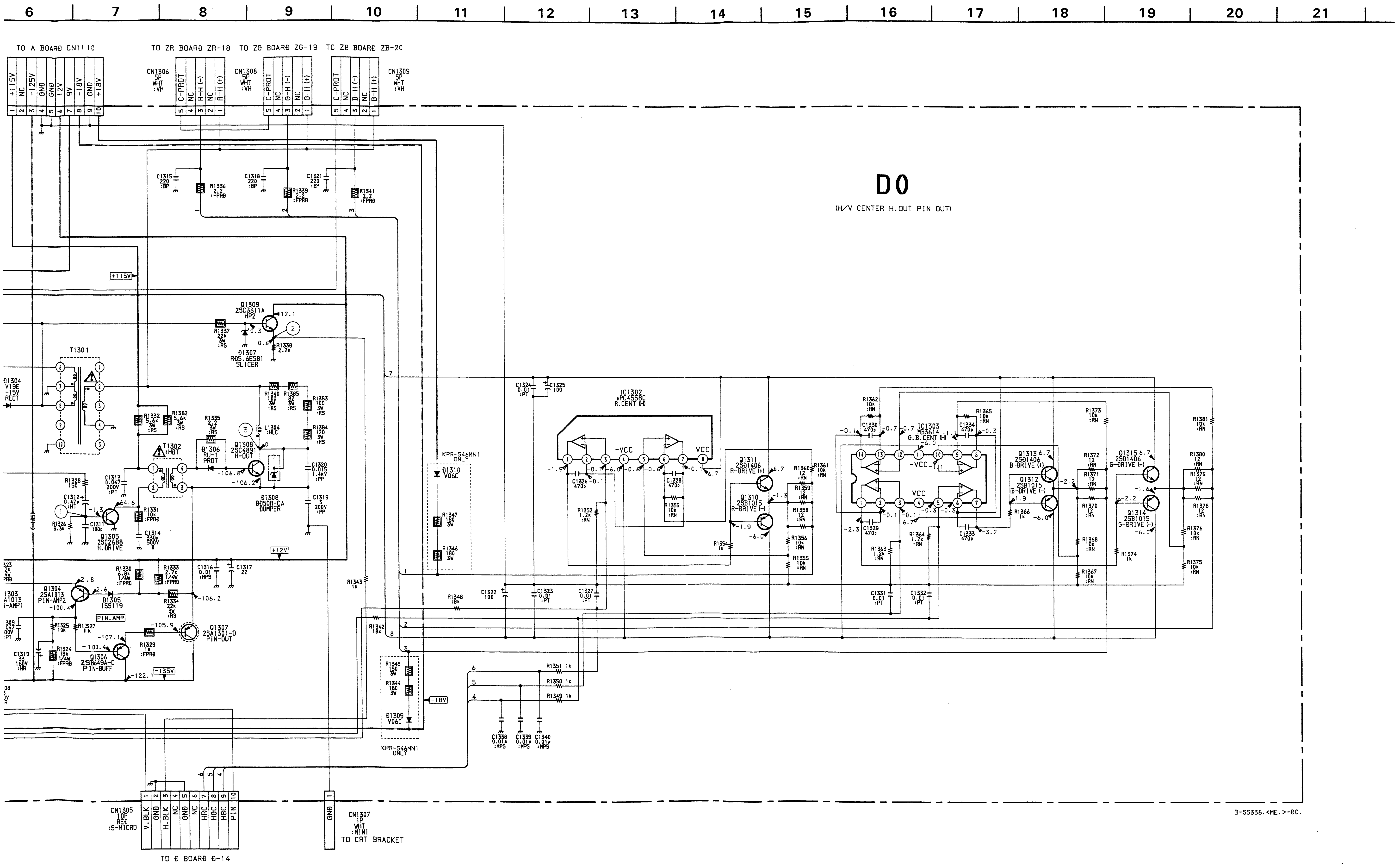
DO Board IC1301 CXA1315P


⑬ ⑫ ⑪
SAD2 SAD1 SAD0
② ① ⑨ ⑩
SW0~3
LEVEL CONVERTER
LATCH
LEVEL CONVERTER
I²C BUS
⑭ SDA
⑮ SCL
LEVEL CONVERTER
I²C DECODER
Power On Reset
LATCH
LATCH
LATCH
LATCH
LATCH
⑯ Vcc
REG
Vcc
DAC
DAC
DAC
DAC
DAC
AMP
AMP
AMP
AMP
AMP
GND
DAC4
DAC3
DAC2
DAC1
DAC0
⑧ ③ ④ ⑤ ⑥ ⑦

DO Board Waveforms

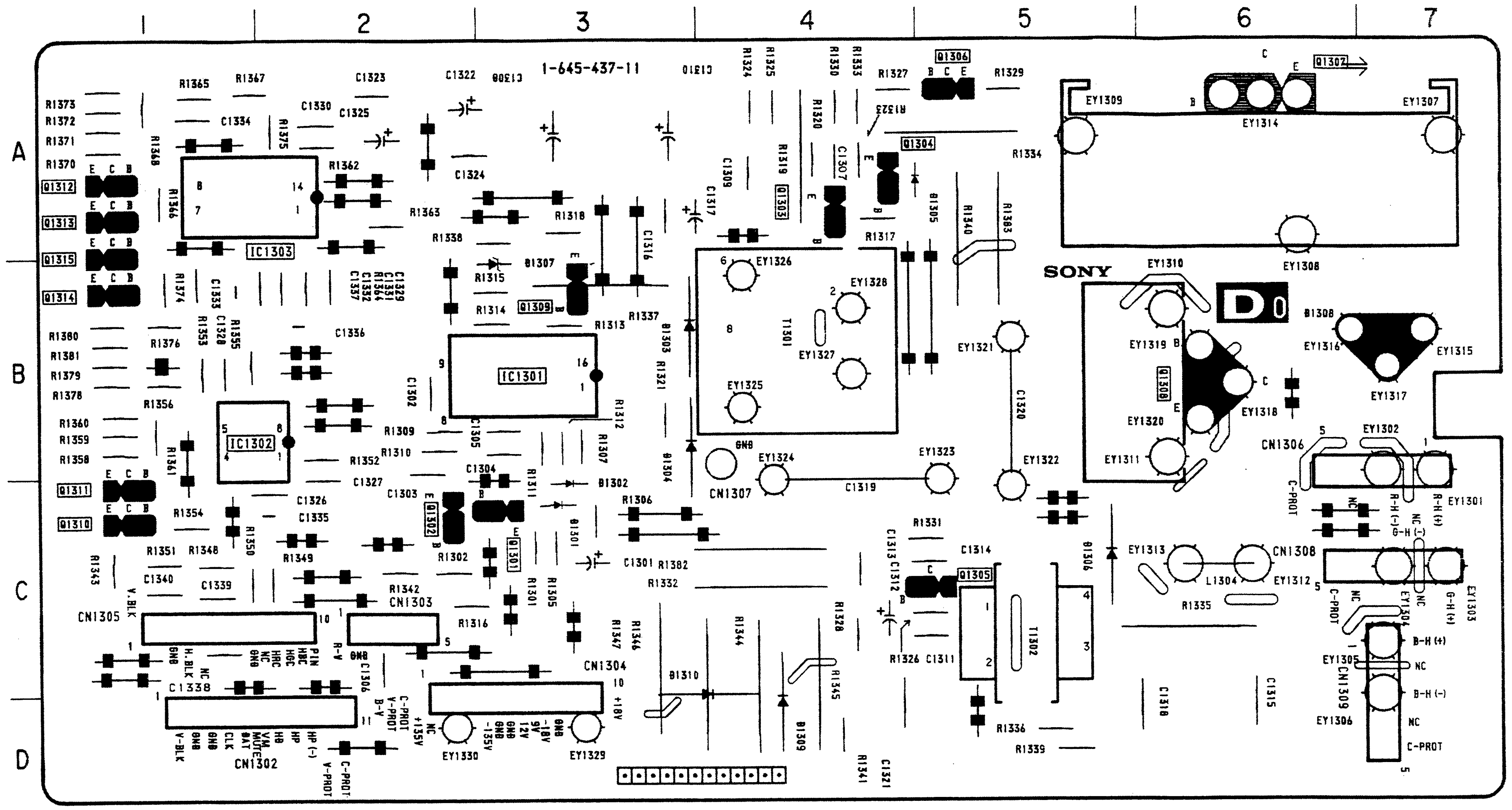

①
3.5Vp-p (H)
②
5.0 Vp-p(H)
③
900Vp-p (H)


1
2
3
4
5
6
7
A
B
C
D
E
F
G
H
I
J
TO D BOARD D-4
C-PROT
V-PROT
B-V
GND
R-V
5 4 3 2 1
CN1303
5P
WHT
:S-MICRO
CN1304
10P
YEL
:S-MICRO
TO A BOARD CN1110
+115V
NC
-125V
GND
GND
12V
9V
-18V
GND
+18V
1 2 3 4 5 6 7 8 9 10
TO
CN13
5P
WHT
C1335
0.01
RS
SS
SC/O
BH
RH
BV
RV
E
VCC
CLK
DAT
BS
GS
9.3
R1315
100
SCK
5.6
5.6
SDA
R1314
100
0.4
R1307
1k
4.8
4.7
4.6
4.6
C1305
0.01
:MPS
C1304
0.01
:MPS
C1303
0.01
:MPS
C1302
0.01
:MPS
R1312
6.8k
R1311
6.8k
R1310
6.8k
R1309
6.8k
R1313
10k
9.3
IC1301
CXA1315P
BUS-DEC
#4E
+9V
+115V
R1316
39k
C1306
0.01
:MPS
R1318
0.47
:FPRD
D1303
V19E
15V
RECT
D1304
V19E
-15V
RECT
R1321
0.47
:FPRD
T1301
R1332
5.6k
3W
:RS
R1328
150
C1312
0.47
:HT
C1313
0.047
200V
:PT
-1.3
64.6
R1326
3.3k
C1311
100p
Q1305
2SC2688
H.DRIVE
R1331
10k
:FPRD
C1314
330p
500V
B
D1302
1SS119
R1306
27k
D1301
1SS119
R1305
27k
9.3
0
0.1
Q1302
2SC3311A
BUFF
Q1301
2SC3311A
BUFF
-0.6
-0.5
R1302
15k
R1301
15k
C1307
0.022
200V
:PT
R1320
470k
R1323
2.2k
1/4W
:FPRD
2.3
Q1303
2SA1013
PIN-AMP1
-0.6
Q1304
2SA1013
PIN-AMP2
2.8
2.6
-100.4
D1305
1SS119
R1330
6.8k
1/4W
:FPRD
PIN.AMP
R1317
1k
C1309
0.047
200V
:PT
R1325
10k
R1327
1k
-107.1
-100.4
R1319
27k
3W
:RS
C1310
33
160V
:HR
R1324
18k
1/4W
:FPRD
Q1306
2SB649A-C
PIN-BUFF
R1329
1k
:FPRD
-122.1
C1308
33
160V
:HR
SCK
SDA
C1301
22
V-BLK
GND
GND
CLK
DAT
VM MUTE
HD
HP
HP (-)
V-PROT
C-PROT
1 2 3 4 5 6 7 8 9 10 11
CN1302
11P
YEL
:S-MICRO
TO A BOARD CN1120
CN1305
10P
RED
:S-MICRO
V.BLK
GND


6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
DO
(H/V CENTER H.OUT PIN OUT)
TO A BOARD CN1110
TO ZR BOARD ZR-18
TO ZG BOARD ZG-19
TO ZB BOARD ZB-20
+115V
NC
-125V
GND
GND
12V
9V
-18V
GND
+18V
CN1306 5P WHT :VH
C-PROT
NC
R-H (-)
NC
R-H (+)
CN1308 5P WHT :VH
C-PROT
NC
G-H (-)
NC
G-H (+)
CN1309 5P WHT :VH
C-PROT
NC
B-H (-)
NC
B-H (+)
C1315 220 :BP
R1336 2.2 :FPRD
C1318 220 :BP
R1339 2.2 :FPRD
C1321 220 :BP
R1341 2.2 :FPRD
+115V
Q1309 2SC3311A HP2
R1337 22k 3W :RS
D1307 RD5.6ESB1 SLICER
R1338 2.2k
T1301
D1304 V19E -15V RECT
R1332 5.6k 3W :RS
R1382 5.6k 3W :RS
R1340 100 3W :RS
R1385 82 3W :RS
R1383 100 3W :RS
R1384 120 3W :RS
R1335 2.2 3W :RS
L1304 :HLC
Q1308 2SC4891 H-OUT
D1306 RU-1 PROT
T1302 :HDT
C1320 0.015 1.4kV :PP
D1308 DD50R-CA DUMPER
C1319 3 200V :PP
R1328 150
C1313 0.047 200V :PT
C1312 0.47 :HT
R1326 3.3k
C1311 100p
R1331 10k :FPRD
C1314 330p 500V B
Q1305 2SC2688 H.DRIVE
+12V
Q1304 2SA1013 PIN-AMP2
R1330 6.8k 1/4W :FPRD
R1333 2.7k 1/4W :FPRD
D1305 1SS119
R1334 22k 3W :RS
C1316 0.01 :MPS
C1317 22
PIN.AMP
R1325 10k
R1327 1k
R1324 18k 1/4W :FPRD
Q1306 2SB649A-C PIN-BUFF
R1329 1k :FPRD
Q1307 2SA1301-O PIN-OUT
C1310 33 160V :HR
-135V
R1343 1k
R1342 18k
KPR-S46MN1 ONLY
D1310 V06C
R1347 180 3W
R1346 180 3W
R1345 150 3W
R1344 180 3W
D1309 V06C
-18V
KPR-S46MN1 ONLY
R1348 18k
C1322 100
C1323 0.01 :PT
C1327 0.01 :PT
C1324 0.01 :PT
C1325 100
IC1302 µPC4558C R.CENT (H)
-VCC
VCC
C1326 470p
C1328 470p
R1352 1.2k :RN
R1353 10k :RN
Q1311 2SD1406 R-DRIVE (+)
Q1310 2SB1015 R-DRIVE (-)
R1360 12 :RN
R1361 10k :RN
R1359 12 :RN
R1358 10k :RN
R1356 10k :RN
R1355 10k :RN
R1354 1k
R1351 1k
R1350 1k
R1349 1k
C1338 0.01 :MPS
C1339 0.01 :MPS
C1340 0.01 :MPS
R1362 10k :RN
C1330 470p
IC1303 MB3614 G.B.CENT (H)
R1365 10k :RN
C1334 470p
C1329 470p
R1363 1.2k :RN
R1364 1.2k :RN
C1333 470p
C1331 0.01 :PT
C1332 0.01 :PT
Q1313 2SD1406 B-DRIVE (+)
Q1312 2SB1015 B-DRIVE (-)
R1366 1k
R1373 10k :RN
R1372 12 :RN
R1371 12 :RN
R1370 12 :RN
R1368 10k :RN
R1367 10k :RN
Q1315 2SD1406 G-DRIVE (+)
Q1314 2SB1015 G-DRIVE (-)
R1374 1k
R1381 10k :RN
R1380 12 :RN
R1379 12 :RN
R1378 12 :RN
R1376 10k :RN
R1375 10k :RN
CN1305 10P RED :S-MICRO
V.BLK
GND
H.BLK
NC
GND
NC
HRC
HBC
HBC
PIN
TO D BOARD D-14
GND
CN1307 1P WHT :MINI TO CRT BRACKET
B-SS338.<ME.>-DO.

D0 [H/V CENTER H.OUT PIN OUT]

—D0 Board—


1
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3
4
5
6
7
A
B
C
D
1-645-437-11
SONY
D0
IC1301
IC1302
IC1303
Q1301
Q1302
Q1303
Q1304
Q1305
Q1306
Q1308
Q1309
Q1310
Q1311
Q1312
Q1313
Q1314
Q1315
T1301
T1302
CN1302
CN1303
CN1304
CN1305
CN1306
CN1307
CN1308
CN1309
EY1301
EY1302
EY1303
EY1305
EY1306
EY1307
EY1308
EY1309
EY1310
EY1311
EY1312
EY1313
EY1314
EY1315
EY1316
EY1317
EY1318
EY1319
EY1320
EY1321
EY1322
EY1323
EY1324
EY1325
EY1326
EY1327
EY1328
EY1329
EY1330
L1304
C-PROT
V-PROT
R-H (+)
R-H (-)
G-H (+)
G-H (-)
B-H (+)
B-H (-)
NC
+135V
-135V
+18V
12V
9V
GND
H.BLK
V.BLK
CLK
PIN
HBC

D0 Board

IC

IC1301	B-3
1302	B-1
1303	A-1

TRANSISTOR

Q1301	C-3
1302	C-2
1303	A-4
1304	A-4
1305	C-5
1306	A-5
1307	A-6
1308	B-6
1309	B-3
1310	C-1
1311	C-1
1312	A-1
1313	A-1
1314	B-1
1315	A-1

DIODE

D1301	C-3
1302	C-3
1303	B-3
1304	B-3
1305	A-4
1306	C-5
1307	B-3
1308	B-7
1309	D-4
1310	C-4

G Board

IC

IC601	B-7
606	E-2

TRANSISTOR

Q603	F-6
604	A-8
607	A-7
608	B-8
613	B-7
614	E-7
615	C-6
616	B-7
618	Đ-2
620	B-7
621	Đ-2
623	Đ-2
624	F-1
629	E-1
630	A-8

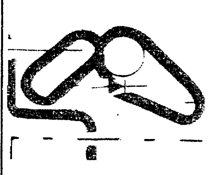
ĐIOĐE

Đ602	B-5
603	B-5
604	A-4
605	A-5
607	G-6
609	A-7
610	G-5
611	B-5
613	C-6
614	E-7
615	A-5
616	Đ-8
617	B-7
618	B-6
619	B-5
620	G-2
621	A-6
622	A-6
623	B-7
624	Đ-2
626	Đ-3
627	E-2
628	B-6
629	B-7
630	C-3
631	Đ-3
632	F-2
634	F-2
638	Đ-1
639	G-1
640	G-3
641	E-2
650	B-4

VARIARBLE RESISTOR

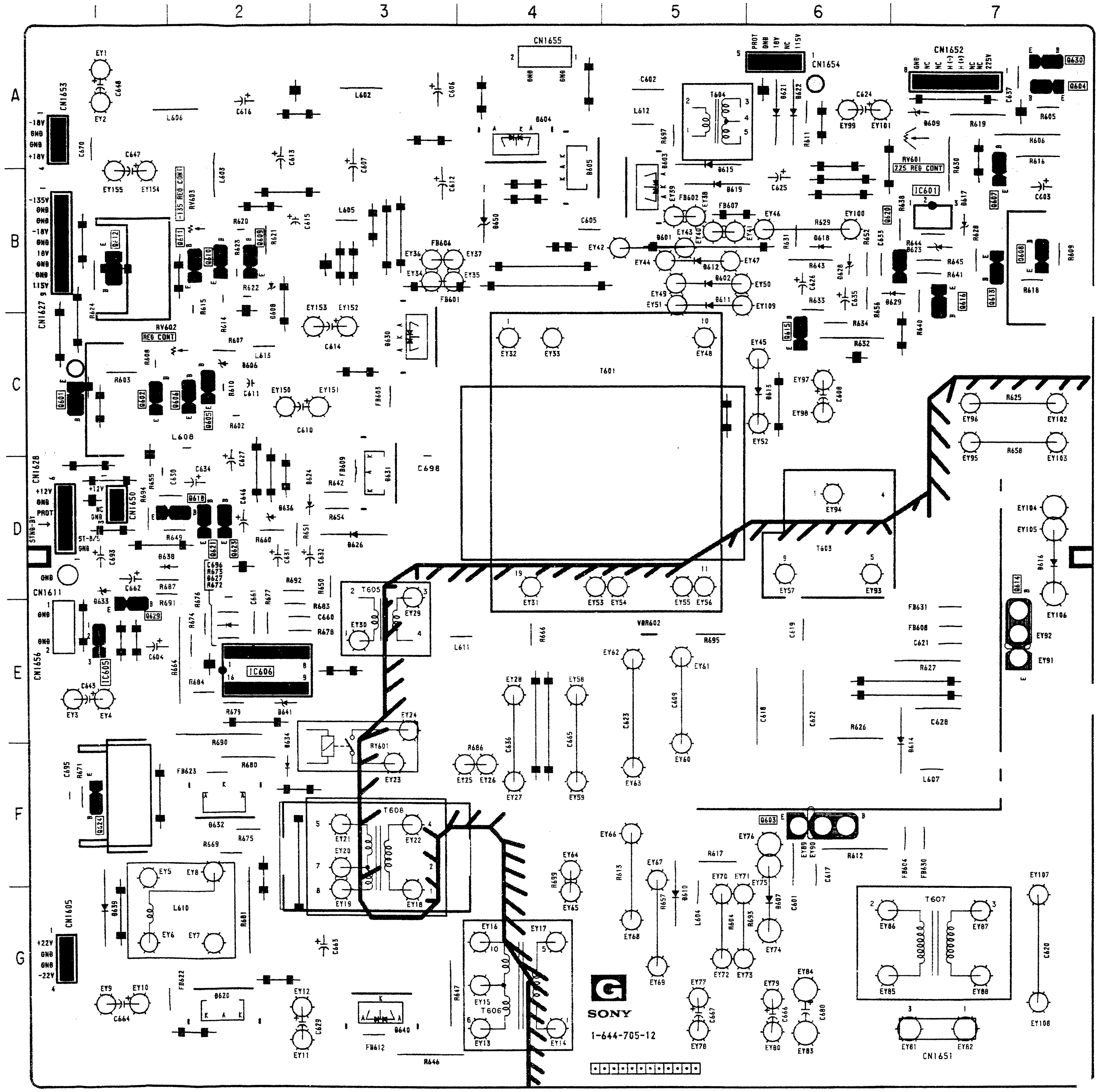
RV601	A-7

G [POWER SUPPLY]



NOTE:
The circuit indicated as left contains high voltage of over 600 Vp-p. Care must be paid to prevent an electric shock inspection or repairing.

— G Board —


1
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3
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5
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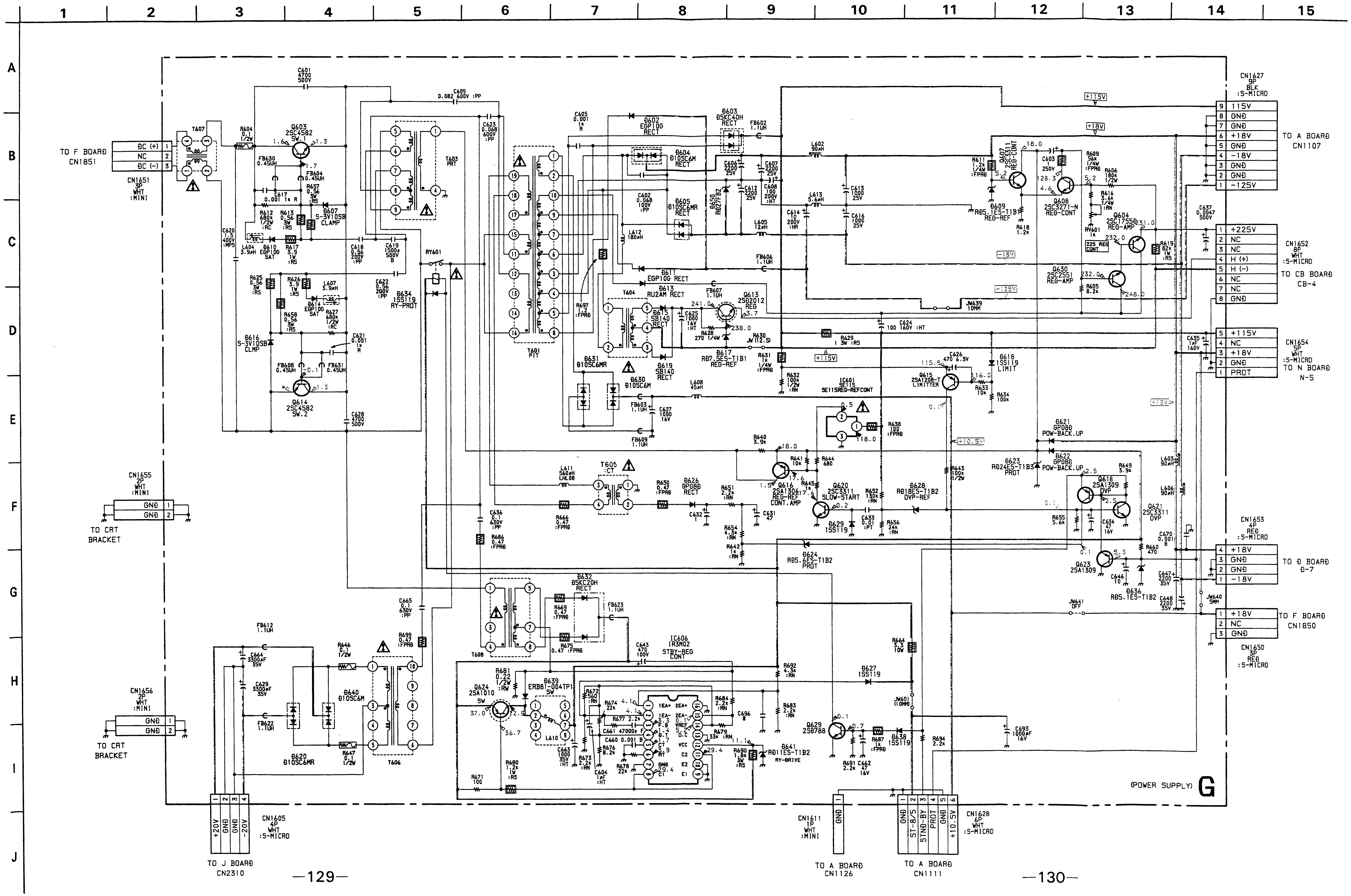
7
A
B
C
D
E
F
G
CN1655
CN1654
CN1652
CN1653
CN1627
CN1628
CN1650
CN1611
CN1656
CN1605
CN1651
IC601
IC606
T601
T603
T604
T605
T606
T607
RY601
RV601
225 REG CONT
RV602
REG CONT
-135 REG CONT
SONY
1-644-705-12


1
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11
12
13
14
15
A
B
C
D
E
F
G
H
I
J
TO F BOARD
CN1851
ĐC (+)
NC
ĐC (-)
CN1651
3P
WHT
:MINI
T607
R604 0.1 1/2W
Q603 2SC4582 SW.1
FB630 0.45UH
FB604 0.45UH
C617 0.001 1k R
R657 0.56 3W :RS
R612 680k 1/2W :RC
R613 0.56 3W :RS
Đ607 S-3V10SB CLAMP
C620 1.5 400V :MPS
L604 3.9μH
Đ610 EGP10G SAT
R617 3.9 1W :RS
R625 0.56 3W :RS
R626 3.9 1W :RS
L607 3.9μH
Đ614 EGP10G SAT
R627 680k 1/2W :RC
R658 0.56 3W :RS
C621 0.001 1k R
Đ616 S-3V10SB CLMP
FB606 0.45UH
FB631 0.45UH
Q614 2SC4582 SW.2
C628 4700 500V
C601 4700 500V
C609 0.082 600V :PP
C618 0.56 200V :PP
C619 1500p 500V B
C622 0.56 200V :PP
Đ634 1SS119 RY-PROT
RY601
T603 PRT
C623 0.068 600V :PP
C605 0.001 1k R
T601 PIT
Đ602 EGP10G RECT
Đ603 Đ5KC40H RECT
FB602 1.1UH
Đ604 Đ10SC6M RECT
C606 2200 25V
C607 2200 25V
C602 0.068 100V :PP
Đ605 Đ10SC6MR RECT
R650 RĐ27FB2
C612 2200 25V
C608 100 200V :HT
L612 180μH
L605 12μH
FB606 1.1UH
Đ611 EGP10G RECT
Đ613 RU2AM RECT
T604
Đ615 SB140 RECT
C625 1000 16V :HT
FB607 1.1UH
Q613 2SD2012 REG
R628 270 1/4W
R630 (12.5)
R697 1.2 :FPRĐ
Đ617 RĐ7.5ES-T1B1 REG-REF
Đ631 Đ10SC6MR
Đ619 SB140 RECT
Đ630 Đ10SC6M
FB603 1.1UH
C627 1000 16V
L608 45μH
FB609 1.1UH
L602 90μH
L613 5.6μH
C613 1000 25V
C614 10 200V :HR
C616 1000 25V
R611 1.2k 1/4W :FPRĐ
Q607 2SC3311 REG-CONT
C603 1 250V
Q608 2SC3271-N REG-CONT
Đ609 RĐ5.1ES-T1B1 REG-REF
R609 56k 1/4W :FPRĐ
R606 180k 1/2W
R616 3.6k 1/4W :RN
RV601 1k
225 REG CONT
Q604 2SC1755 REG-AMP
R619 82k 1W :RS
Q630 2SC2551 REG-AMP
R605 8.2k
JW639 10MM
C637 0.0047 500V
115V
+18V
-18V
-125V
C624 100 160V :HT
R629 1 3W :RS
R631 1k 1/4W :FPRĐ
R632 100k 1/2W :RN
IC601 SE115 SE115REG-REFCONT
Q615 2SA1208-T LIMITTER
C626 470 6.3V
Đ618 1SS119 LIMIT
R633 10k
R634 100k
R638 100 :FPRĐ
R640 3.9k
R641 10k
R644 680
Q616 2SA1306 REG-REF CONT.AMP
R645 1k
Q620 2SC3311 SLOW-START
R652 130k :RN
Q629 1SS119
C633 0.01 :PT
R656 24k :RN
R643 100k 1/2W
Đ628 RĐ18ES-T1B2 OVP-REF
Đ621 GP08Đ POW-BACK.UP
Đ622 GP08Đ POW-BACK.UP
Đ623 RĐ24ES-T1B3 PROT
R649 3.9k
Q618 2SA1309 OVP
Q621 2SC3311 OVP
L603 90μH
L606 90μH
R655 5.6k
C634 47 16V
C670 0.001 B
R660 470
Q623 2SA1309
C646 10
Đ636 RĐ5.1ES-T1B2
C647 2200 35V
C648 2200 35V
JW640 5MM
JW641 OFF
C635 1μF 160V
L611 560μH LHL08
T605 :CT
R650 0.47 :FPRĐ
Đ626 GP08Đ RECT
R651 2.2k :RN
C631 47
C632 1
R654 4.3k :RN
R642 1k :RN
R666 0.47 :FPRĐ
C636 0.1 630V :PP
R686 0.47 :FPRĐ
Đ624 RĐ5.6ES-T1B2 PROT
T608
Đ632 Đ5KC20H RECT
R669 0.47 :FPRĐ
FB623 1.1UH
R675 0.47 :FPRĐ
C643 470 100V
IC606 IR3M02 STBY-REG CONT
C665 0.1 630V :PP
R699 0.47 :FPRĐ
FB612 1.1UH
C664 3300μF 35V
C629 3300μF 35V
FB622 1.1UH
Đ620 Đ10SC6MR
R646 0.1 1/2W
Đ640 Đ10SC6M
R647 0.1 1/2W
T606
Q624 2SA1010 SW
R681 0.22 1/2W :RW
Đ639 ERB81-004TP1 SW
L610
R680 1.2k 1W :RS
R671 100
R672 560 :RN
R674 22k
R677 2.2k
C661 47000p F
C660 0.001 B
C663 1000 35V :HT
R673 2.2k :RN
C604 1μF :HT
R676 8.2k
R678 22k
1EA+ 2EA+
1EA- 2EA-
F.B VREF
D.T O.C
RT VCC
C2
E2
GND E1
R684 2.2k :RN
C696 8
R679 33k :RN
R690 1.8k 3W :RS
Đ641 RĐ11ES-T1B2 RY-ĐRIVE
R692 4.3k :RN
Đ627 1SS119
R683 2.2k :RN
R664 3.3 10W
JW601 (10MM)
Q629 2SB788
R687 1k :FPRĐ
Đ638 1SS119
R694 2.2k
R691 2.2k
C662 47 16V
C693 1000μF 16V
CN1627 9P BLK :S-MICRO
115V
GNĐ
GNĐ
+18V
GNĐ
-18V
GNĐ
GNĐ
-125V
TO A BOARĐ CN1107
CN1652 8P WHT :S-MICRO
+225V
NC
NC
H (+)
H (-)
NC
NC
GNĐ
TO CB BOARĐ CB-4
CN1654 5P WHT :S-MICRO
+115V
NC
+18V
GNĐ
PROT
TO N BOARĐ N-5
CN1653 4P REĐ :S-MICRO
+18V
GNĐ
GNĐ
-18V
TO Đ BOARĐ Đ-7
+18V
NC
GNĐ
TO F BOARĐ CN1850
CN1650 3P REĐ :S-MICRO
CN1655 2P WHT :MINI
GNĐ
GNĐ
TO CRT BRACKET
CN1656 2P WHT :MINI
GNĐ
GNĐ
TO CRT BRACKET
CN1605 4P WHT :S-MICRO
+20V
GNĐ
GNĐ
-20V
TO J BOARĐ CN2310
CN1611 1P WHT :MINI
GNĐ
TO A BOARĐ CN1126
CN1628 6P WHT :S-MICRO
GNĐ
ST-B/5
STNĐ-BY
PROT
GNĐ
+10.5V
TO A BOARĐ CN1111
(POWER SUPPLY)
G

KPR-S46MN1/S53MN1
RM-821

N [HV]

N Board

I·C

IC801	B-3
803	A-1
804	Đ-2
805	Đ-4

TRANSISTOR

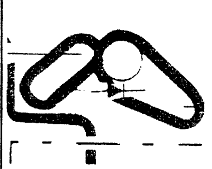
Q801	B-5
802	B-3
803	Đ-6
804	Đ-5
806	Đ-5
808	C-1
809	Đ-4
811	C-7
812	B-2
820	B-3
851	C-5
852	C-4
853	C-3

ĐIOĐE

Đ801	A-6
802	B-5
805	B-2
806	C-2
807	Đ-4
808	Đ-2
809	Đ-1
810	Đ-3
814	A-3
815	Đ-3
817	Đ-7
818	B-3
820	A-3
850	C-4
851	F-5
852	C-4
853	F-5

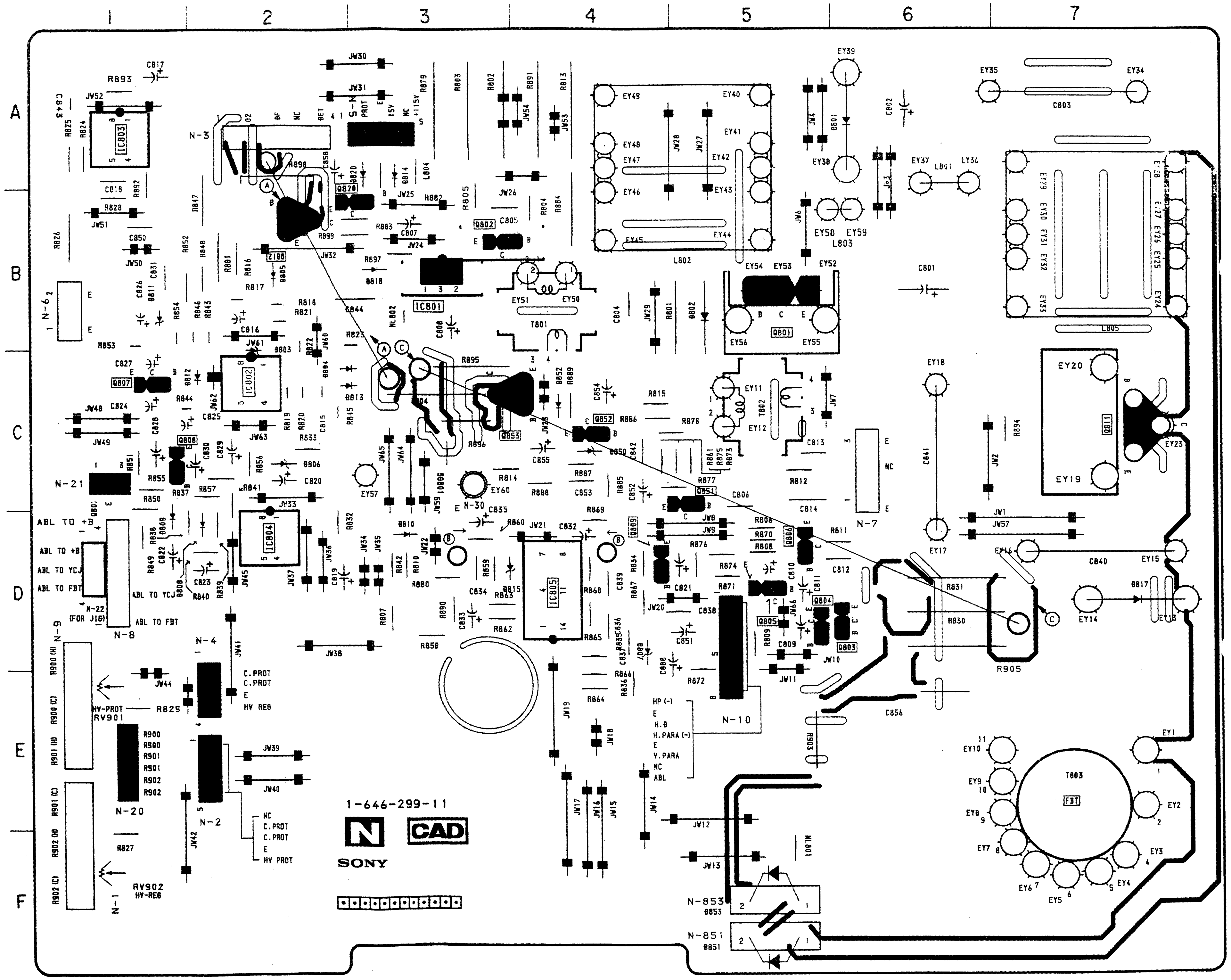
VARIARBLE RESISTOR

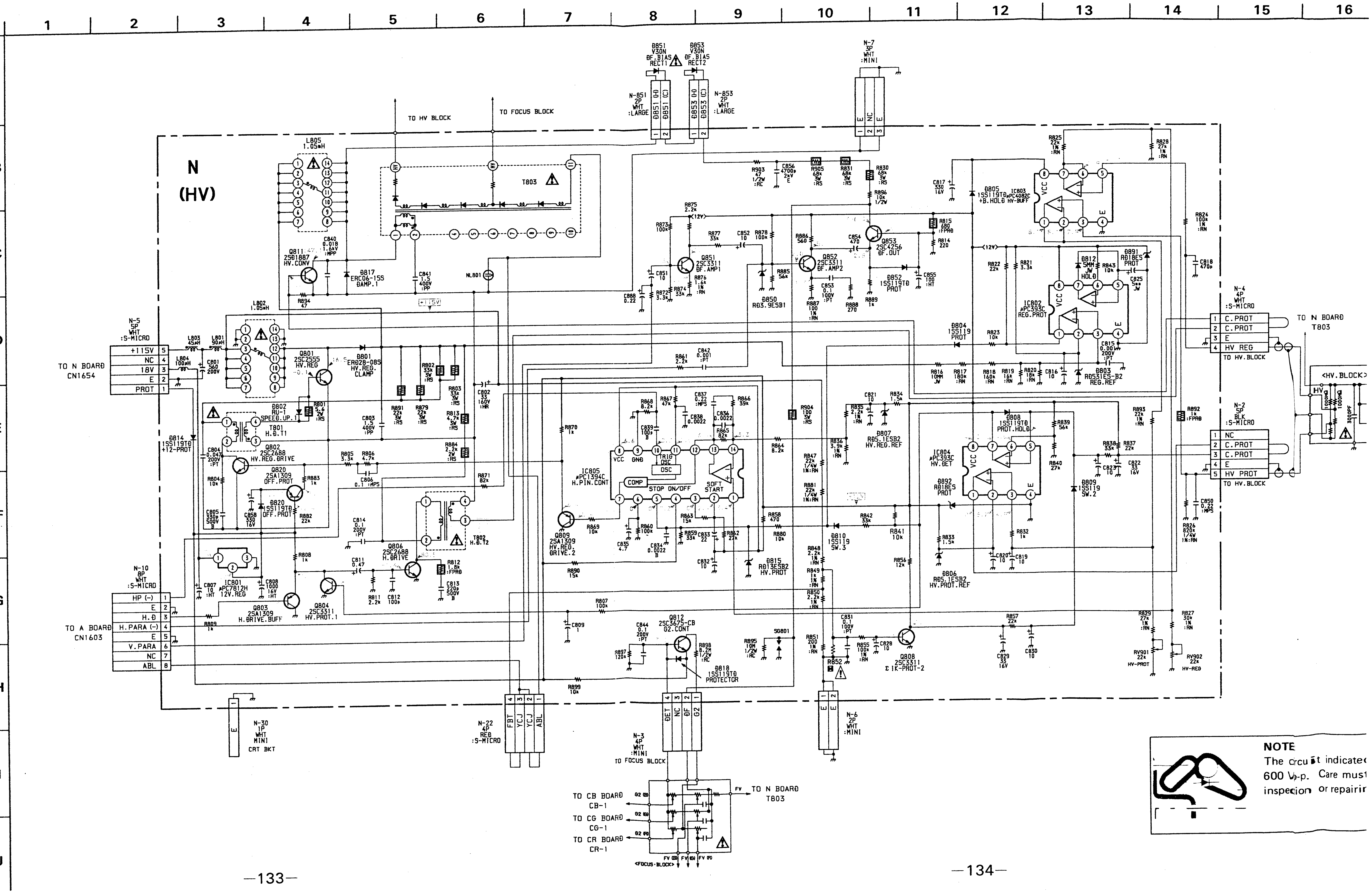
RV901	E-1
902	F-1



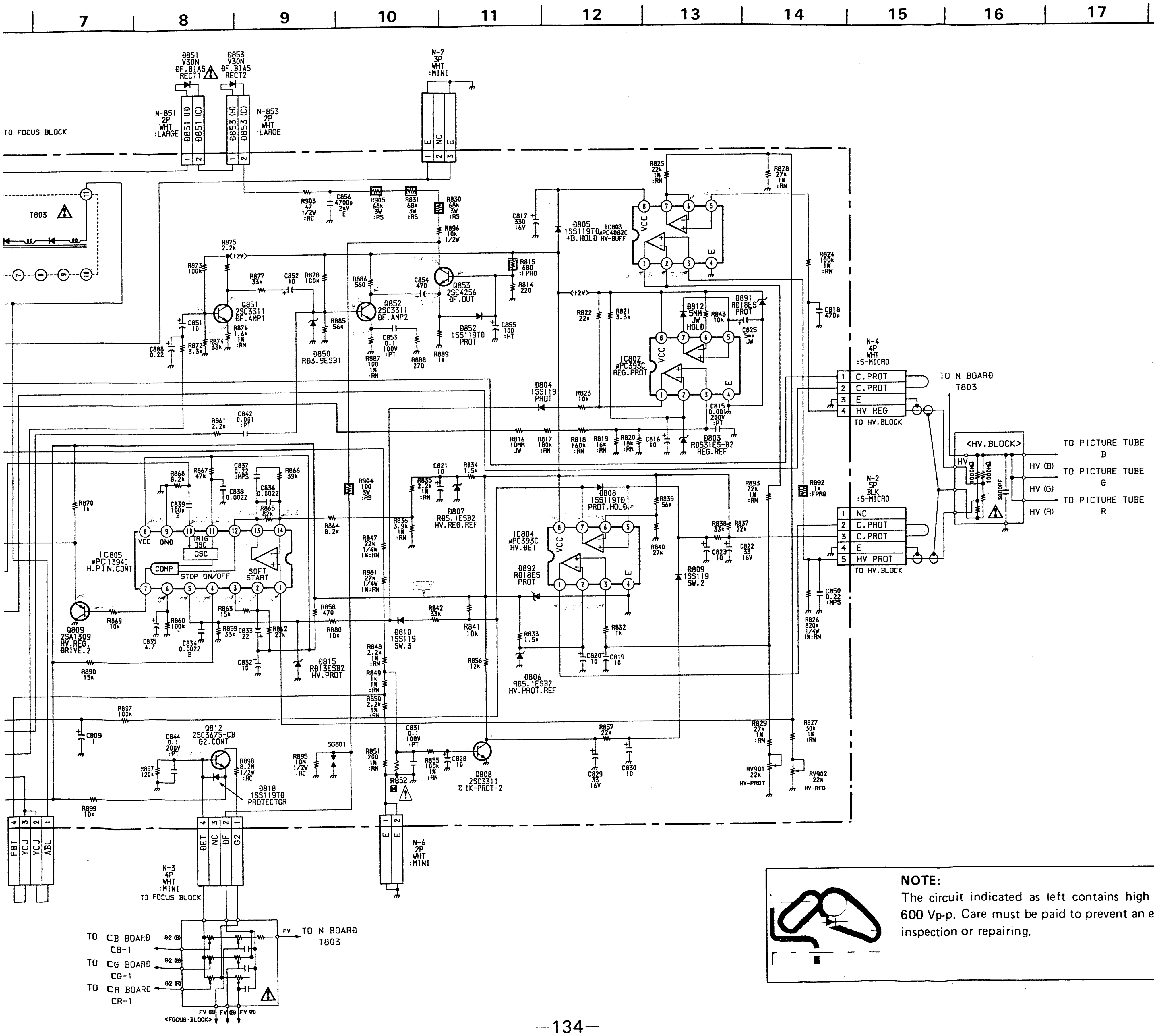
NOTE:
The circuit indicated as left contains high voltage of over 600 Vp-p. Care must be paid to prevent an electric shock in inspection or repairing.

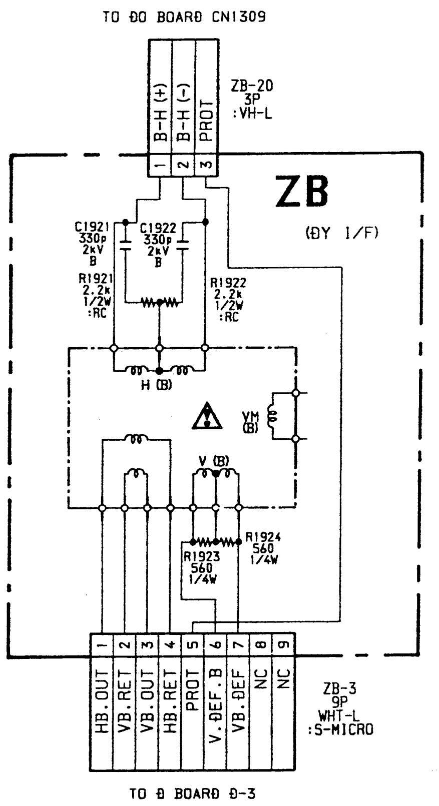
—N Board—


1
2
3
4
5
6
7
A
B
C
D
E
F
IC801
IC802
IC803
IC804
IC805
Q801
Q802
Q803
Q804
Q805
Q806
Q807
Q808
Q809
Q811
Q820
Q851
Q852
Q853
T801
T802
T803
FBT
L801
L802
L803
L805
C803
N-1
N-2
N-3
N-4
N-6
N-7
N-8
N-10
N-20
N-21
N-22 (FOR J16)
N-30
N-851
N-853
ABL TO +B
ABL TO YCJ
ABL TO FBT
HV-PROT
RV901
RV902
HV-REG
C.PROT
HV REG
NC
HV PROT
HP (-)
H.B
H.PARA (-)
V.PARA
ABL
R905
1-646-299-11
N
CAD
SONY


N
(HV)
TO HV BLOCK
TO FOCUS BLOCK
T803
L805 1.05mH
L802 1.05mH
Q801 2SC2555 HV.REG
D801 ERO28-08S HV.REG. CLAMP
Q811 2SD1887 HV.CONV
D817 ERC06-15S DAMP.1
Q802 2SC2688 HV.REG.DRIVE
Q820 2SA1309 OFF.PROT
D820 1SS119TD OFF.PROT
D814 1SS119TD +12-PROT
T801 H.D.T1
T802 H.D.T2
IC801 μPC7812H 12V.REG
Q803 2SA1309 H.DRIVE.BUFF
Q804 2SC3311 HV.PROT.1
Q806 2SC2688 H.DRIVE
Q809 2SA1309 HV.REG. DRIVE.2
IC805 μPC1394C H.PIN.CONT
COMP
OSC
TRIG OSC
STOP ON/OFF
SOFT START
VCC
GND
Q851 2SC3311 DF.AMP1
Q852 2SC3311 DF.AMP2
Q853 2SC4256 DF.OUT
D850 RD3.9ESB1
D852 1SS119TD PROT
D851 V30N DF.BIAS RECT1
D853 V30N DF.BIAS RECT2
N-851 2P WHT :LARGE
N-853 2P WHT :LARGE
N-7 3P WHT :MINI
IC803 μPC4082C HV-BUFF
D805 1SS119TD +B.HOLD
IC802 μPC393C REG.PROT
Q812 SMM HOLD
D891 RD18ES PROT
D804 1SS119 PROT
D803 RD5.1ES-B2 REG.REF
D807 RD5.1ESB2 HV.REG.REF
D808 1SS119TD PROT.HOLD
IC804 μPC393C HV.DET
Q892 RD18ES PROT
D809 1SS119 SW.2
D810 1SS119 SW.3
D815 RD13ESB2 HV.PROT
D806 RD5.1ESB2 HV.PROT.REF
Q808 2SC3311 Σ IK-PROT-2
Q812 2SC3675-CB G2.CONT
D818 1SS119TD PROTECTOR
SG801
NL801
RV901 22k HV-PROT
RV902 22k HV-REG
N-5 5P WHT :S-MICRO
TO N BOARD CN1654
+115V
NC
18V
E
PROT
N-10 8P WHT :S-MICRO
TO A BOARD CN1603
HP (-)
E
H.D
H.PARA (-)
E
V.PARA
NC
ABL
N-4 4P WHT :S-MICRO
C.PROT
C.PROT
E
HV REG
TO N BOARD T803
TO HV.BLOCK
N-2 5P BLK :S-MICRO
NC
C.PROT
C.PROT
E
HV PROT
TO HV.BLOCK
<HV.BLOCK>
N-30 1P WHT MINI CRT BKT
N-22 4P RED :S-MICRO
FBT
YCJ
YCJ
ABL
N-3 4P WHT :MINI
TO FOCUS BLOCK
DET
NC
DF
G2
N-6 2P WHT :MINI
TO CB BOARD CB-1
TO CG BOARD CG-1
TO CR BOARD CR-1
TO N BOARD T803
FV
<FOCUS BLOCK>
+115V
(12V)
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
A B C D E F G H I J

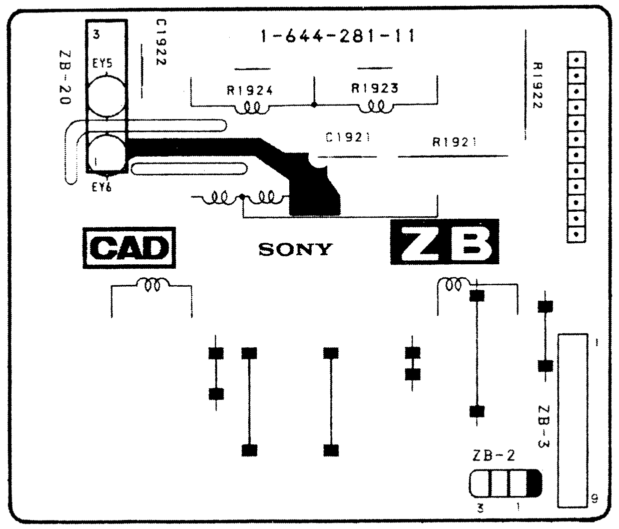
NOTE
The circuit indicate
600 Vp-p. Care mus
inspection or repairi


7
8
9
10
11
12
13
14
15
16
TO FOCUS BLOCK
T803
D851 V30N BF.BIAS RECT1
D853 V30N BF.BIAS RECT2
N-851 2P WHT :LARGE
N-853 2P WHT :LARGE
N-7 3P WHT :MINI
IC803 μPC4082C HV-BUFF
D805 1SS119TD +B.HOLD
Q851 2SC3311 BF.AMP1
Q852 2SC3311 BF.AMP2
Q853 2SC4256 BF.OUT
D852 1SS119TD PROT
D850 RD3.9ESB1
IC802 μPC393C REG.PROT
D812 5MM HOLD
D891 RD18ES PROT
D803 RD5.1ES-B2 REG.REF
D804 1SS119 PROT
N-4 4P WHT :S-MICRO
C.PROT
E
HV REG
TO HV.BLOCK
TO N BOARD T803
<HV.BLOCK>
HV (B)
HV (G)
HV (R)
TO PICTURE TUBE B
TO PICTURE TUBE G
TO PICTURE TUBE R
N-2 5P BLK :S-MICRO
NC
HV PROT
IC805 μPC1394C H.PIN.CONT
COMP
STOP ON/OFF
SOFT START
OSC
IC804 μPC393C HV.DET
D807 RD5.1ESB2 HV.REG.REF
D808 1SS119TD PROT.HOLD
D892 RD18ES PROT
D809 1SS119 SW.2
D810 1SS119 SW.3
D806 RD5.1ESB2 HV.PROT.REF
D815 RD13ESB2 HV.PROT
Q809 2SA1309 HV.REG. DRIVE.2
Q812 2SC3675-CB G2.CONT
D818 1SS119TD PROTECTOR
Q808 2SC3311 Σ IK-PROT-2
RV901 22k HV-PROT
RV902 22k HV-REG
FBT
YCJ
ABL
N-3 4P WHT :MINI TO FOCUS BLOCK
DET
NC
BF
G2
N-6 2P WHT :MINI
TO CB BOARD CB-1
TO CG BOARD CG-1
TO CR BOARD CR-1
TO N BOARD T803
FV
<FOCUS-BLOCK>

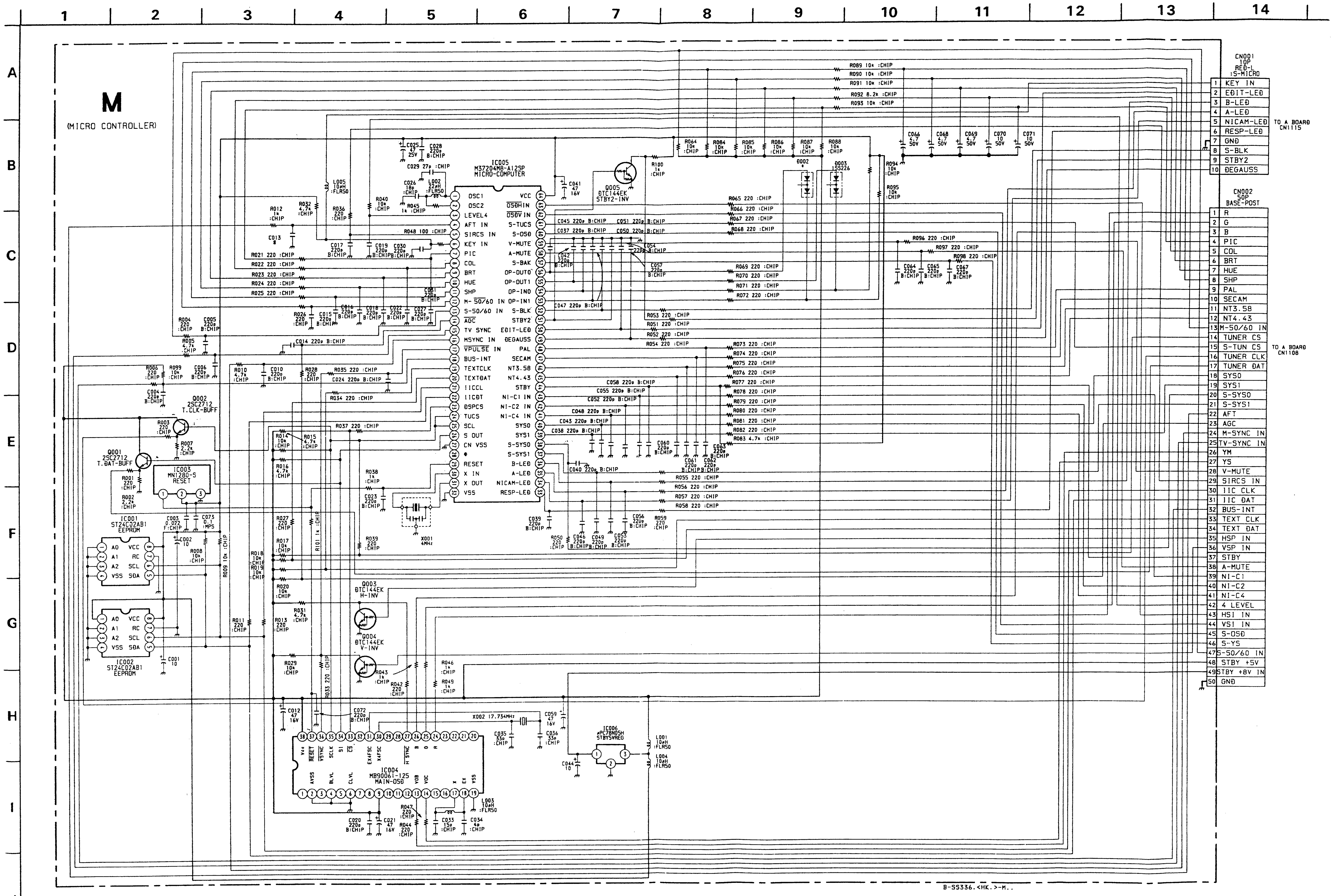

17
18
19
20
21
22
TO DD BOARD CN1309
ZB-20 3P :VH-L
B-H (+)
B-H (-)
PROT
ZB
(DY I/F)
C1921 330p 2kV B
C1922 330p 2kV B
R1921 2.2k 1/2W :RC
R1922 2.2k 1/2W :RC
H (B)
VM (B)
V (B)
R1923 560 1/4W
R1924 560 1/4W
HB.OUT
VB.RET
VB.OUT
HB.RET
PROT
V.DEF.B
VB.DEF
NC
NC
ZB-3 9P WHT-L :S-MICRO
TO D BOARD D-3

ZB [DY I/F]

—ZB Board—

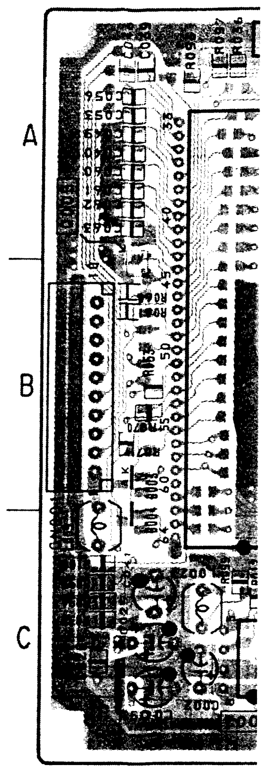

1-644-281-11
ZB-20
C1922
R1922
R1924
R1923
C1921
R1921
EY5
EY6
CAD
SONY
ZB
ZB-3
ZB-2

NOTE:
The circuit indicated as left contains high voltage of over 600 Vp-p. Care must be paid to prevent an electric shock in inspection or repairing.

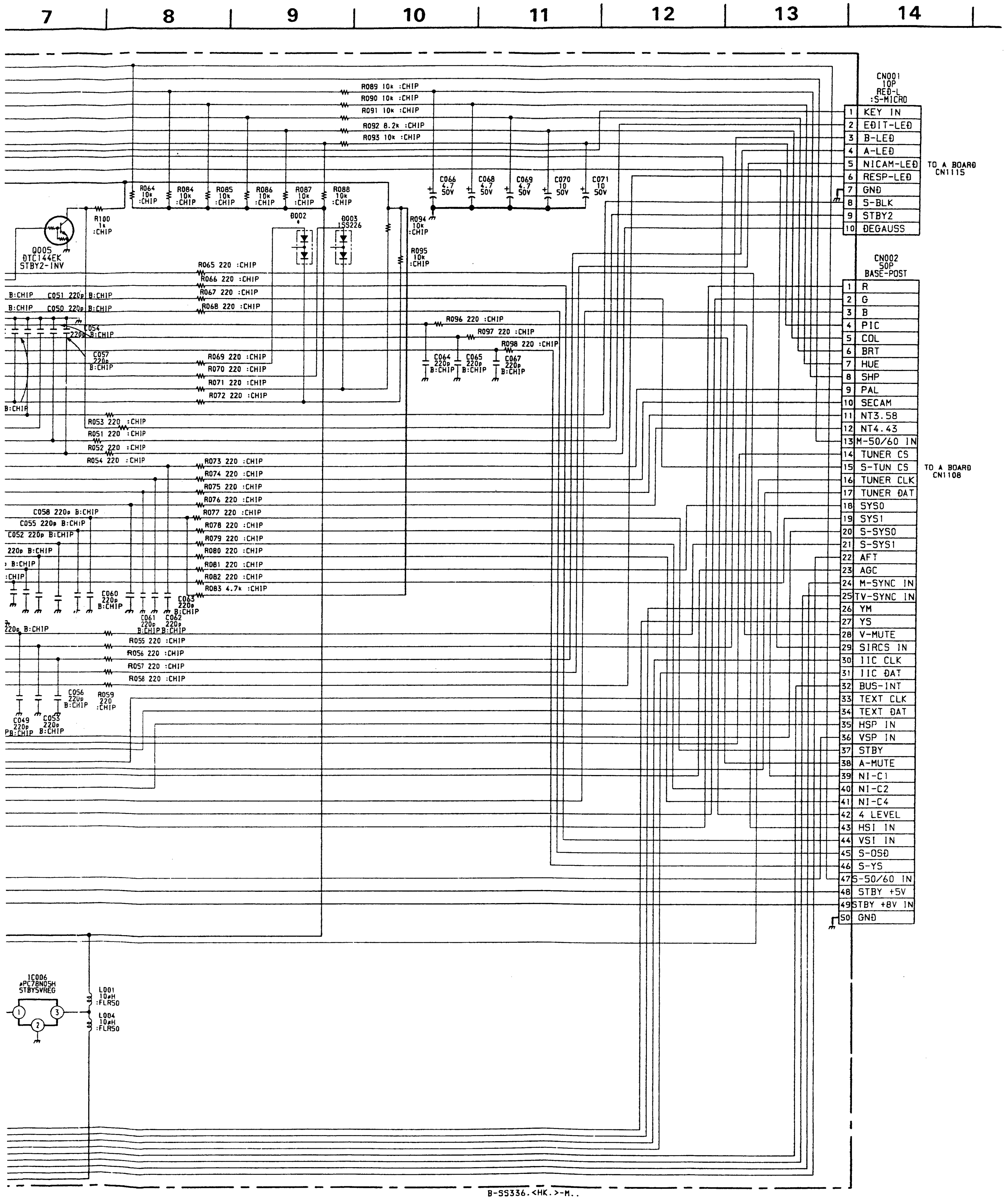

M
(MICRO CONTROLLER)
IC005
M37204M8-A12SP
MICRO-COMPUTER
OSC1
OSC2
LEVEL4
AFT IN
SIRCS IN
KEY IN
PIC
COL
BRT
HUE
SHP
M-50/60 IN
S-50/60 IN
AGC
TV SYNC
MSYNC IN
VPULSE IN
BUS-INT
TEXTCLK
TEXTDAT
IICCL
IICDT
DSPCS
TUCS
SCL
S OUT
CN VSS
RESET
X IN
X OUT
VSS
VCC
OSDHIN
OSDV IN
S-TUCS
S-OSD
V-MUTE
A-MUTE
S-BAK
OP-OUT0
OP-OUT1
OP-IN0
OP-IN1
S-BLK
STBY2
EDIT-LED
DEGAUSS
PAL
SECAM
NT3.58
NT4.43
STBY
NI-C1 IN
NI-C2 IN
NI-C4 IN
SYS0
SYS1
S-SYS0
S-SYS1
B-LED
A-LED
NICAM-LED
RESP-LED
IC001
ST24C02AB1
EEPROM
IC002
ST24C02AB1
EEPROM
IC003
MN1280-S
RESET
IC004
MB90061-125
MAIN-OSD
IC006
μPC78N05H
STBY5VREG
Q001
2SC2712
T.BAT-BUFF
Q002
2SC2712
T.CLK-BUFF
Q003
DTC144EK
H-INV
Q004
DTC144EK
V-INV
Q005
DTC144EK
STBY2-INV
D002
D003
1SS226
X001
4MHz
X002 17.734MHz
CN001
10P
RED-L
:S-MICRO
1 KEY IN
2 EDIT-LED
3 B-LED
4 A-LED
5 NICAM-LED
6 RESP-LED
7 GND
8 S-BLK
9 STBY2
10 DEGAUSS
TO A BOARD
CN1115
CN002
50P
BASE-POST
1 R
2 G
3 B
4 PIC
5 COL
6 BRT
7 HUE
8 SHP
9 PAL
10 SECAM
11 NT3.58
12 NT4.43
13 M-50/60 IN
14 TUNER CS
15 S-TUN CS
16 TUNER CLK
17 TUNER DAT
18 SYS0
19 SYS1
20 S-SYS0
21 S-SYS1
22 AFT
23 AGC
24 M-SYNC IN
25 TV-SYNC IN
26 YM
27 YS
28 V-MUTE
29 SIRCS IN
30 IIC CLK
31 IIC DAT
32 BUS-INT
33 TEXT CLK
34 TEXT DAT
35 HSP IN
36 VSP IN
37 STBY
38 A-MUTE
39 NI-C1
40 NI-C2
41 NI-C4
42 4 LEVEL
43 HSI IN
44 VSI IN
45 S-OSD
46 S-YS
47 S-50/60 IN
48 STBY +5V
49 STBY +8V IN
50 GND
TO A BOARD
CN1108
B-SS336.<HK.>-M..

M [MICRO CONTR

— M Board —

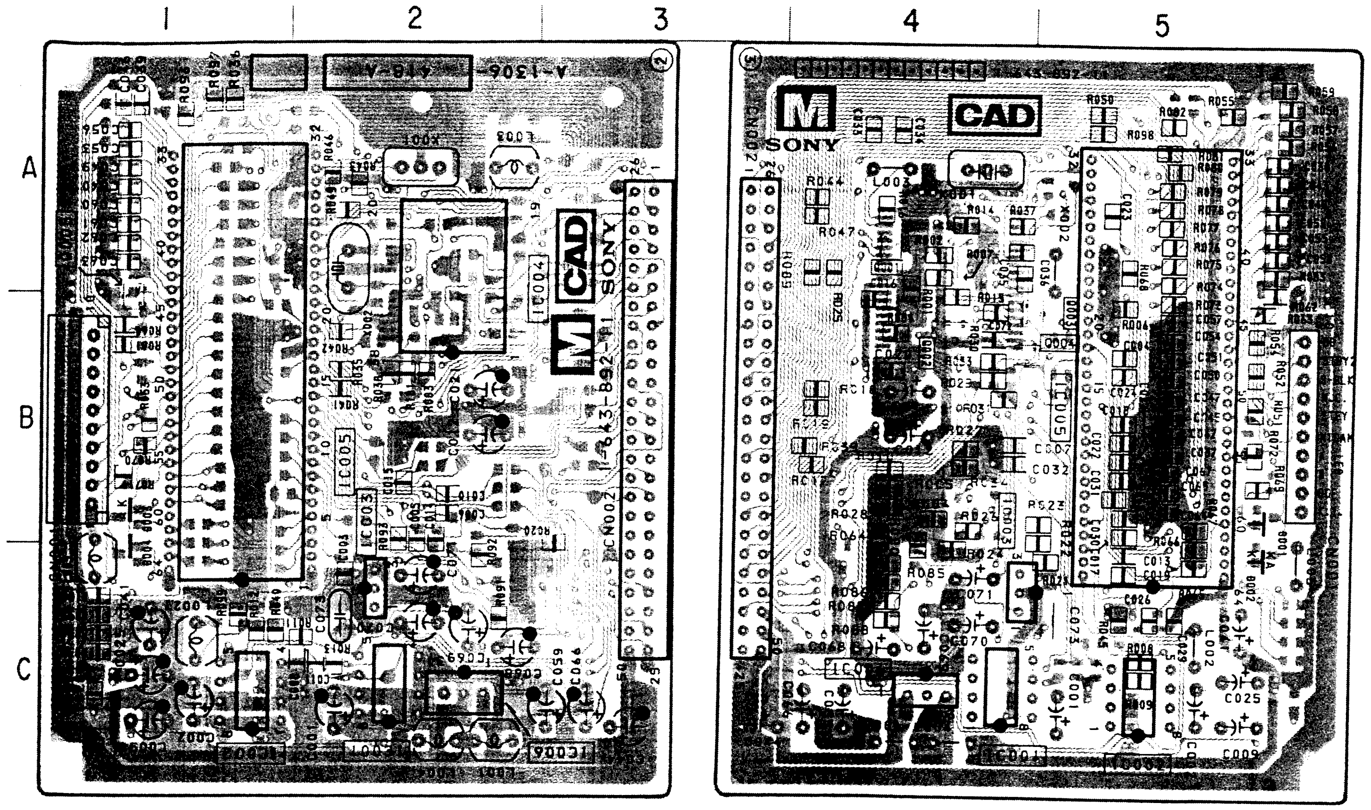


M Bo


7
8
9
10
11
12
13
14
CN001
10P
RED-L
:S-MICRO
1 KEY IN
2 EDIT-LED
3 B-LED
4 A-LED
5 NICAM-LED
6 RESP-LED
7 GND
8 S-BLK
9 STBY2
10 DEGAUSS
TO A BOARD CN1115
CN002
50P
BASE-POST
1 R
2 G
3 B
4 PIC
5 COL
6 BRT
7 HUE
8 SHP
9 PAL
10 SECAM
11 NT3.58
12 NT4.43
13 M-50/60 IN
14 TUNER CS
15 S-TUN CS
16 TUNER CLK
17 TUNER DAT
18 SYS0
19 SYS1
20 S-SYS0
21 S-SYS1
22 AFT
23 AGC
24 M-SYNC IN
25 TV-SYNC IN
26 YM
27 YS
28 V-MUTE
29 SIRCS IN
30 IIC CLK
31 IIC DAT
32 BUS-INT
33 TEXT CLK
34 TEXT DAT
35 HSP IN
36 VSP IN
37 STBY
38 A-MUTE
39 NI-C1
40 NI-C2
41 NI-C4
42 4 LEVEL
43 HS1 IN
44 VS1 IN
45 S-OSD
46 S-YS
47 S-50/60 IN
48 STBY +5V
49 STBY +8V IN
50 GND
TO A BOARD CN1108
Q005 DTC144EK STBY2-INV
R100 1k :CHIP
D002
D003 1SS226
IC006 μPC78N05H STBY5VREG
L001 10μH :FLR50
L004 10μH :FLR50
B-SS336.<HK.>-M..

M [MICRO CONTROLLER]

— M Board —


1
2
3
4
5
A
B
C
CAD
SONY

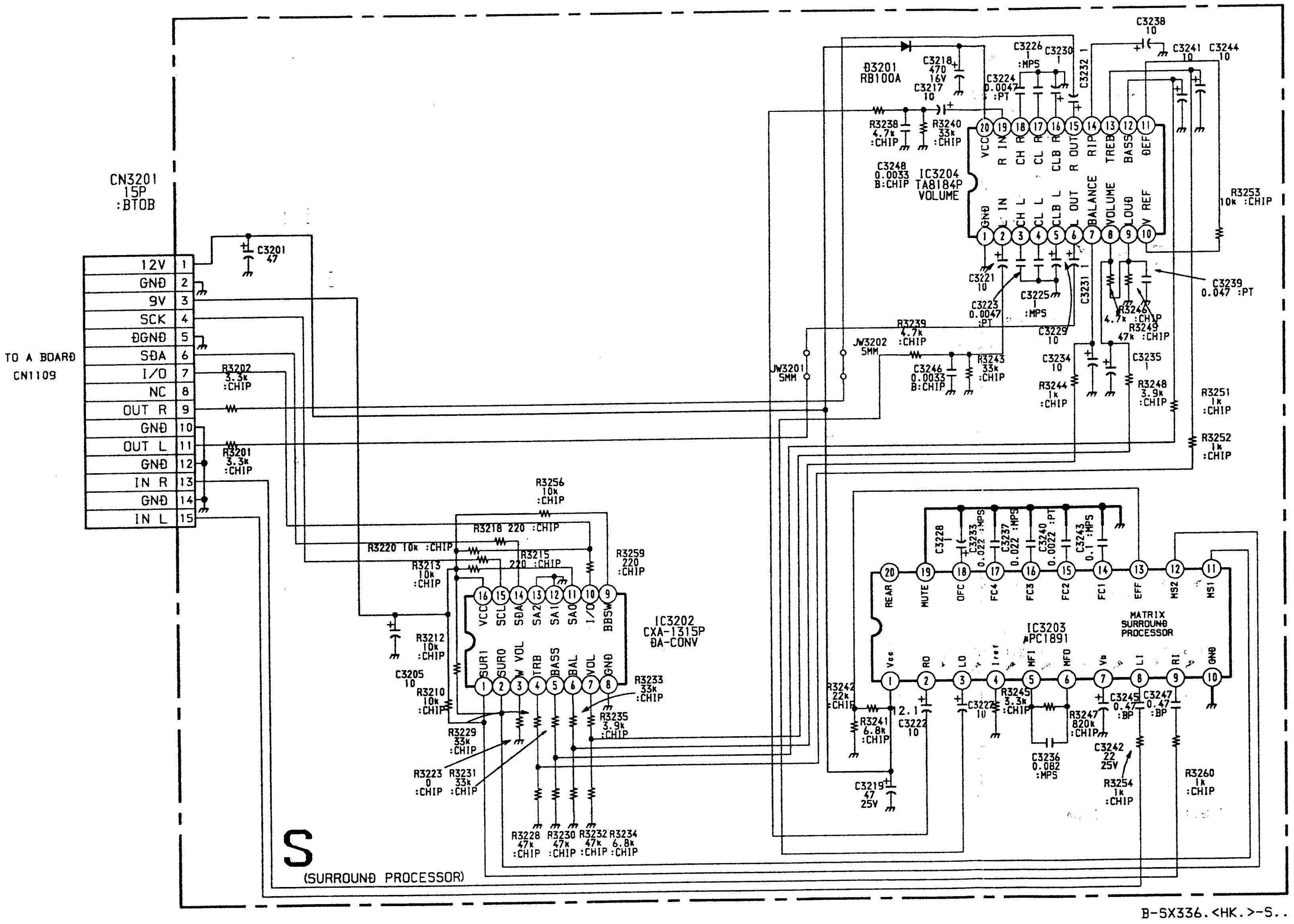
• ▨ : Pattern of the rear side.

M Board

IC	
IC001	C-4
002	C-5
004	A-2
005	B-5

TRANSISTOR	
Q001	A-4
002	B-4
003	B-4
004	B-4
005	B-1

DIODE	
D002	C-5
003	B-1

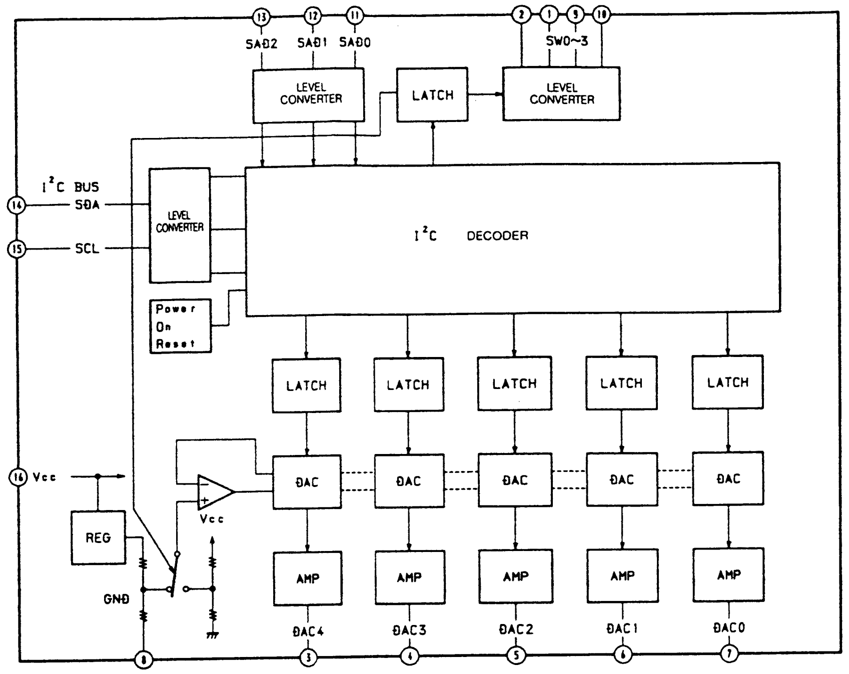

CN3201
15P
:BTOB
TO A BOARD
CN1109
12V
GND
9V
SCK
DGND
SDA
I/O
NC
OUT R
GND
OUT L
GND
IN R
GND
IN L
C3201
47
R3202
3.3k
:CHIP
R3201
3.3k
:CHIP
IC3204
TA8184P
VOLUME
D3201
RB100A
IC3202
CXA-1315P
DA-CONV
IC3203
µPC1891
MATRIX
SURROUND
PROCESSOR
JW3201
5MM
JW3202
5MM
S
(SURROUND PROCESSOR)
B-SX336.<HK.>-S..

S MOUNT

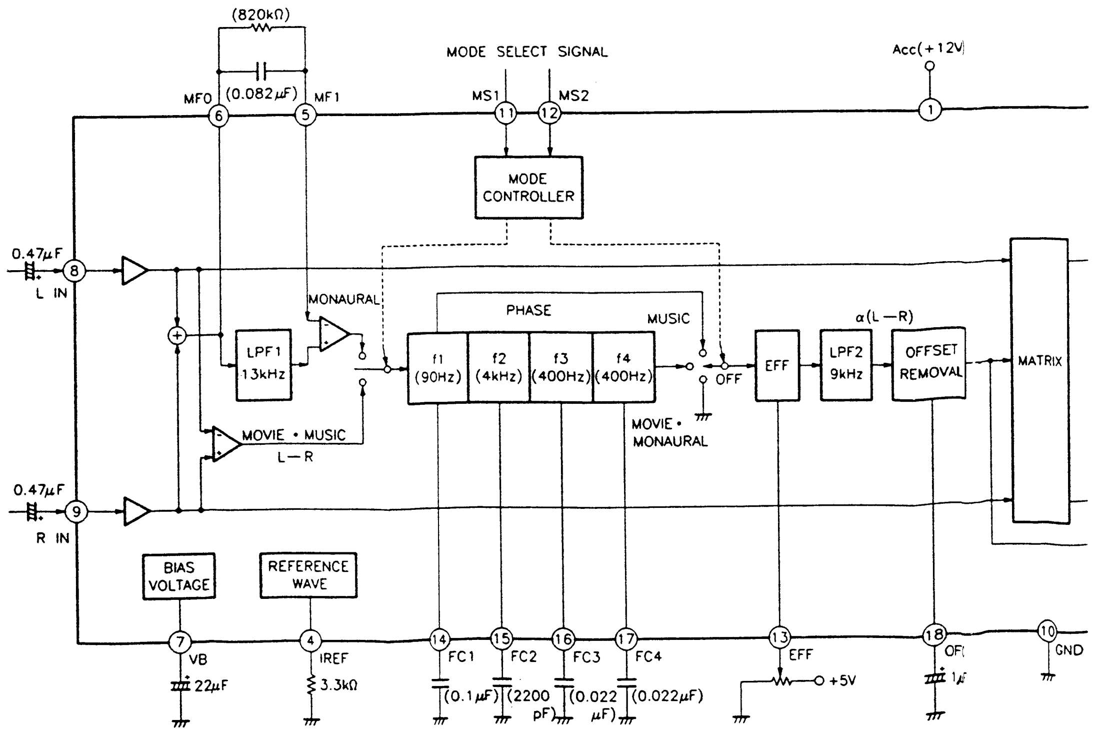
µPC1891 TRUTH TABLE

SUR1 MS2	SUR0 MS1	MODE
L	L	OFF
L	H	MUSIC
H	L	MOVIE
H	H	SPACE

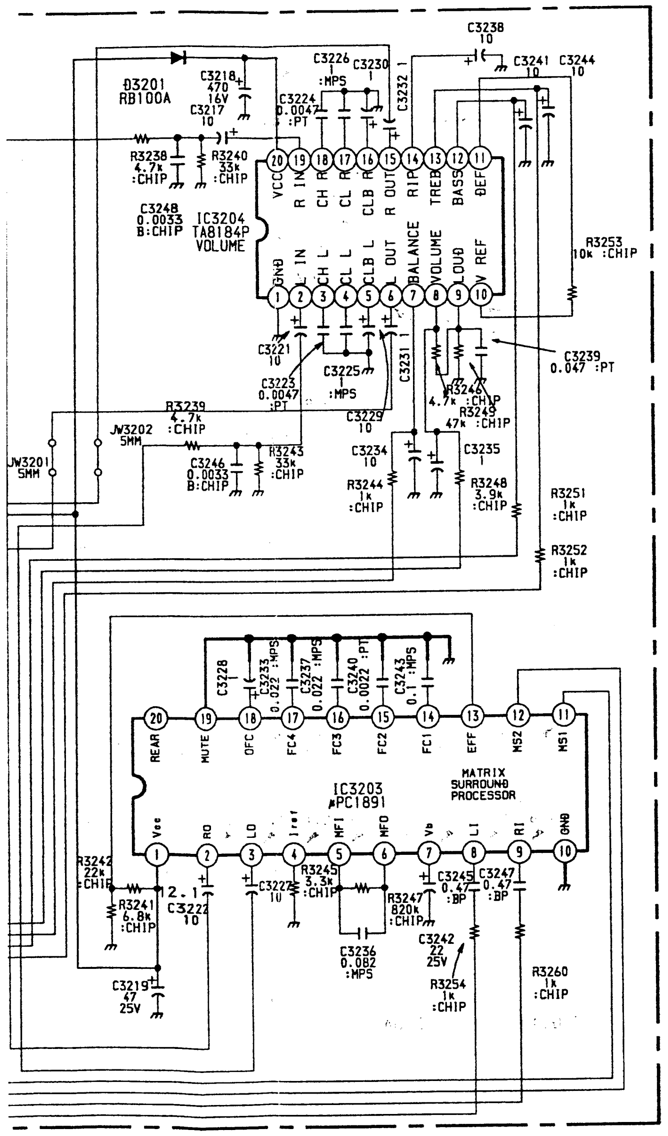
S Board IC3202 CXA1315P


SAD2
SAD1
SAD0
SW0~3
LEVEL CONVERTER
LATCH
LEVEL CONVERTER
I²C BUS
SDA
SCL
LEVEL CONVERTER
I²C DECODER
Power On Reset
LATCH
DAC
AMP
Vcc
REG
GND
DAC4
DAC3
DAC2
DAC1
DAC0

S Board IC3203 µPC1891

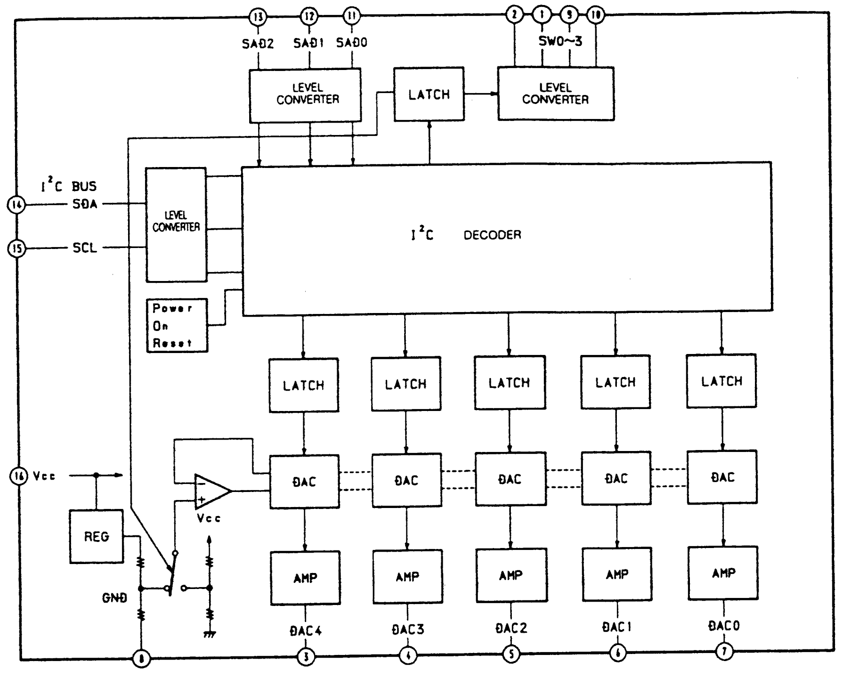

(820kΩ)
(0.082µF)
MFO
MF1
MODE SELECT SIGNAL
MS1
MS2
Acc(+12V)
MODE CONTROLLER
0.47µF
L IN
R IN
MONAURAL
LPF1 13kHz
PHASE
MUSIC
α(L−R)
f1 (90Hz)
f2 (4kHz)
f3 (400Hz)
f4 (400Hz)
OFF
EFF
LPF2 9kHz
OFFSET REMOVAL
MATRIX
MOVIE • MUSIC
L−R
MOVIE • MONAURAL
BIAS VOLTAGE
REFERENCE WAVE
VB
22µF
IREF
3.3kΩ
FC1
FC2
FC3
FC4
(0.1µF)
(2200 pF)
(0.022 µF)
(0.022µF)
EFF
+5V
OF
1µ
GND

S [SURROUND PROCESSOR]

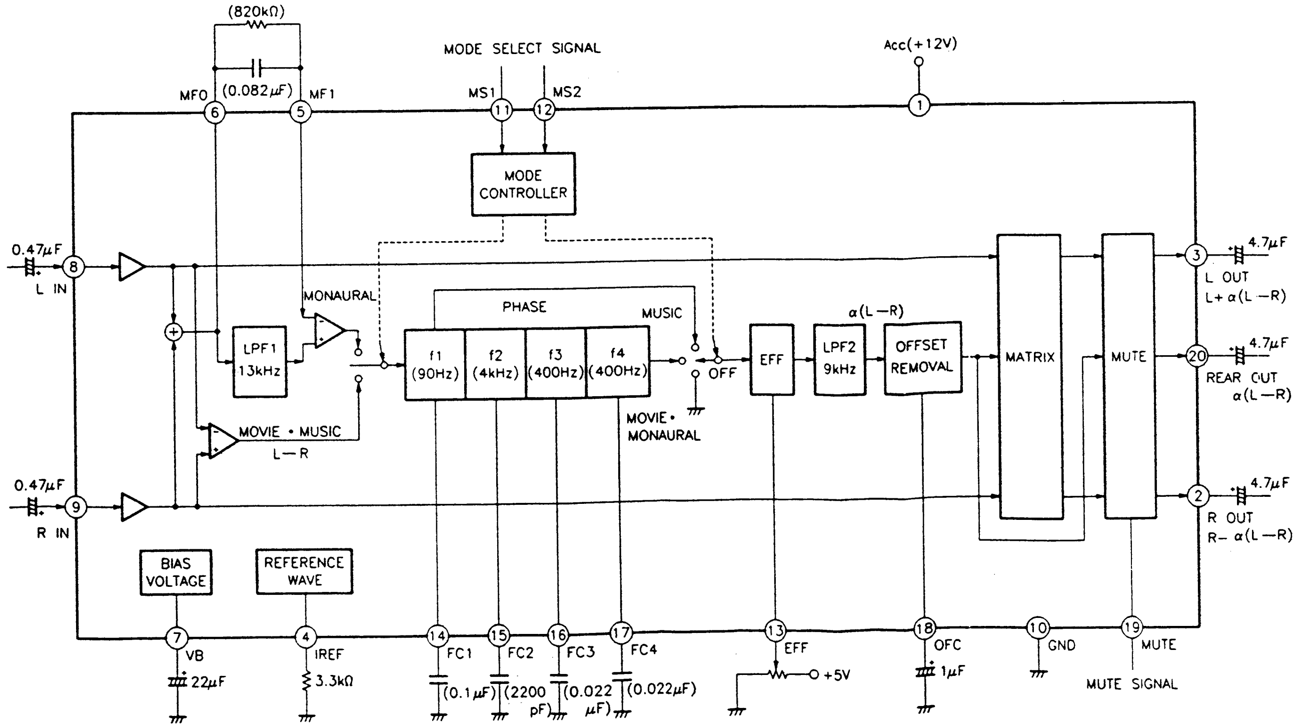

C3238 10
C3241 10
C3244 10
D3201 RB100A
C3218 470 16V
C3217 10
C3226 :MPS
C3230
C3224 0.0047 :PT
C3232
R3238 4.7k :CHIP
R3240 33k :CHIP
C3248 0.0033 B:CHIP
IC3204 TA8184P VOLUME
R3253 10k :CHIP
C3221 10
C3223 0.0047 :PT
C3225 :MPS
C3231
C3229 10
C3239 0.047 :PT
R3246 4.7k :CHIP
R3249 47k :CHIP
R3239 4.7k :CHIP
JW3202 5MM
JW3201 5MM
C3246 0.0033 B:CHIP
R3243 33k :CHIP
C3234 10
R3244 1k :CHIP
C3235 1
R3248 3.9k :CHIP
R3251 1k :CHIP
R3252 1k :CHIP
C3228
C3233 0.022 :MPS
C3237 0.022 :MPS
C3240 0.0022 :PT
C3243 0.1 :MPS
IC3203 μPC1891
MATRIX SURROUND PROCESSOR
R3242 22k :CHIP
R3241 6.8k :CHIP
C3222 10
C3227 10
R3245 3.3k :CHIP
R3247 820k :CHIP
C3245 0.47 :BP
C3247 0.47 :BP
C3236 0.082 :MPS
C3242 22 25V
R3254 1k :CHIP
R3260 1k :CHIP
C3219 47 25V

B-SX336.<HK.>-S..

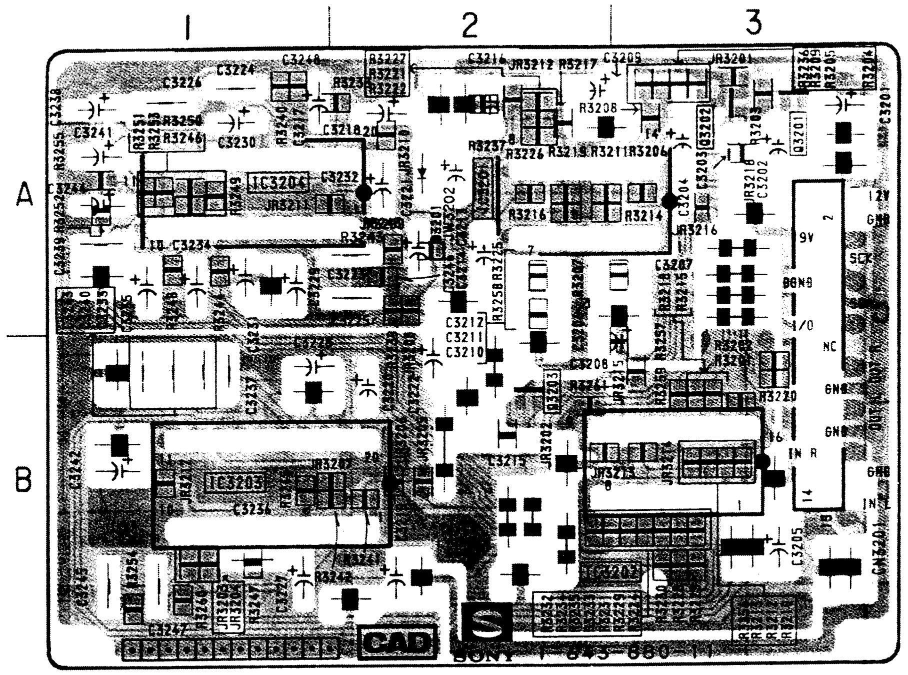
S Board IC3202 CXA1315P


SAD2
SAD1
SAD0
SW0~3
LEVEL CONVERTER
LATCH
LEVEL CONVERTER
I²C BUS
SDA
SCL
LEVEL CONVERTER
I²C DECODER
Power On Reset
LATCH
DAC
AMP
Vcc
REG
GND
DAC4
DAC3
DAC2
DAC1
DAC0

S Board IC3203 μPC1891

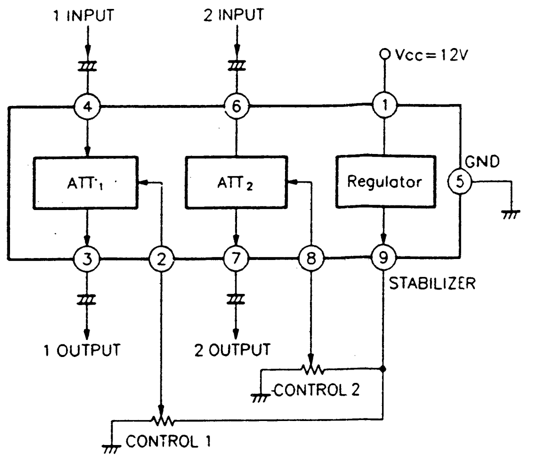

(820kΩ)
(0.082μF)
MFO
MF1
MODE SELECT SIGNAL
MS1
MS2
Acc(+12V)
MODE CONTROLLER
0.47μF
L IN
R IN
MONAURAL
LPF1 13kHz
PHASE
MUSIC
f1 (90Hz)
f2 (4kHz)
f3 (400Hz)
f4 (400Hz)
OFF
EFF
α(L−R)
LPF2 9kHz
OFFSET REMOVAL
MATRIX
MUTE
MOVIE • MUSIC
L−R
MOVIE• MONAURAL
4.7μF
L OUT
L+ α(L −R)
REAR OUT
α(L −R)
R OUT
R− α(L −R)
BIAS VOLTAGE
REFERENCE WAVE
VB
22μF
IREF
3.3kΩ
FC1
FC2
FC3
FC4
(0.1μF)
(2200 pF)
(0.022 μF)
(0.022μF)
EFF
+5V
OFC
1μF
GND
MUTE
MUTE SIGNAL

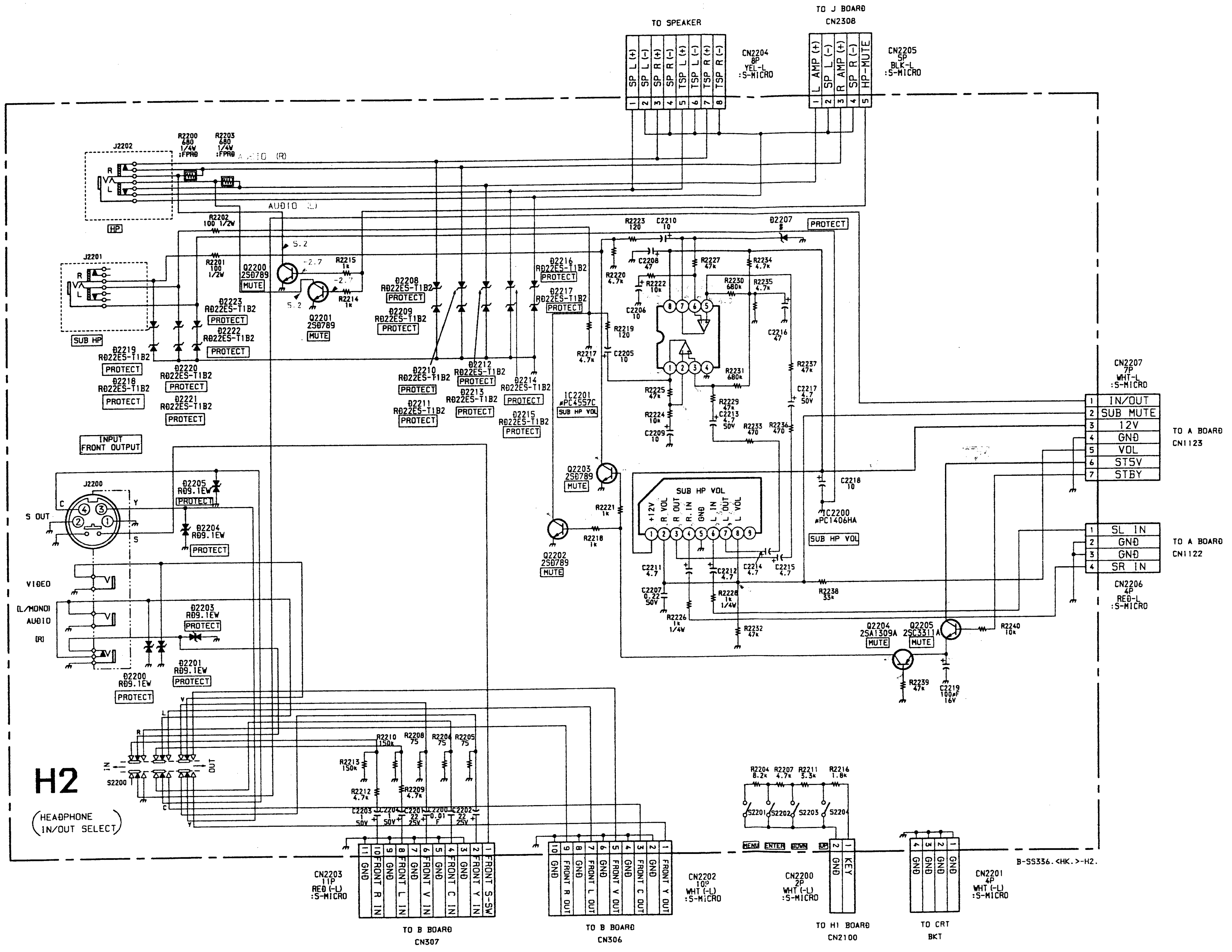
—S Board—

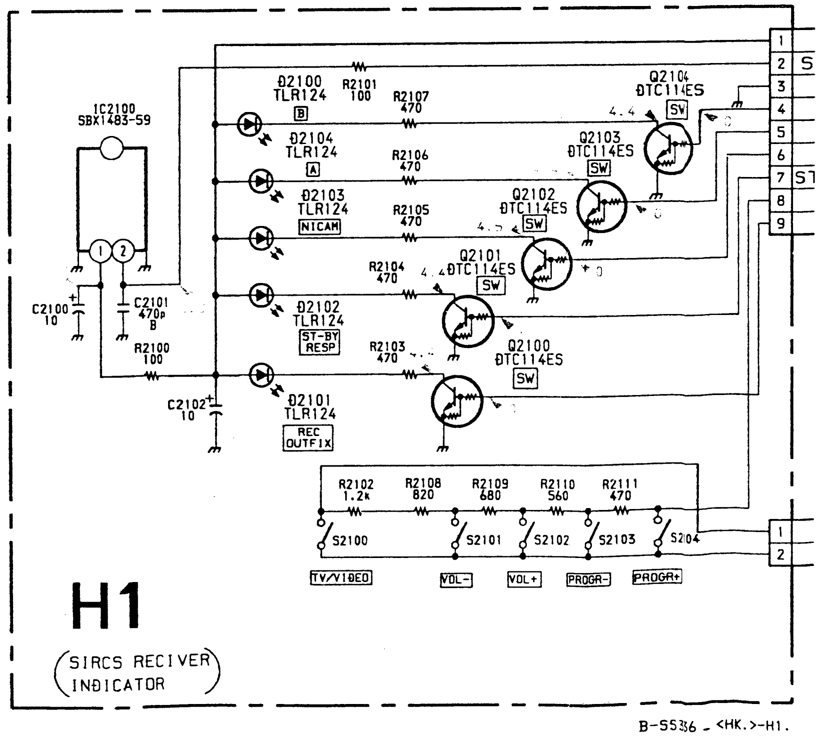

1
2
3
A
B
IC3204
IC3203
IC3202
CAD
SONY

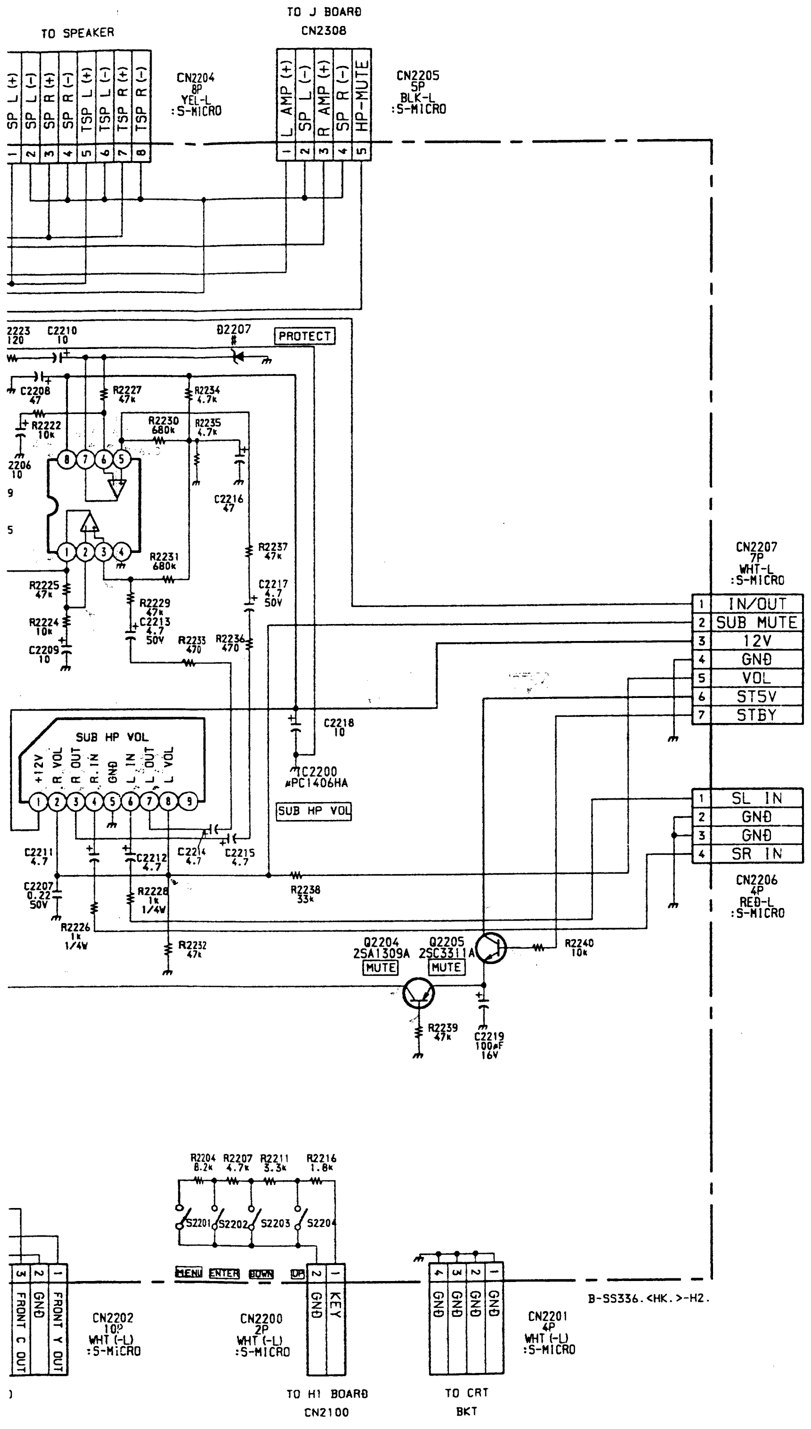
• ▓ : Pattern of the rear side.

H2 Board IC2200 μPC1406HA

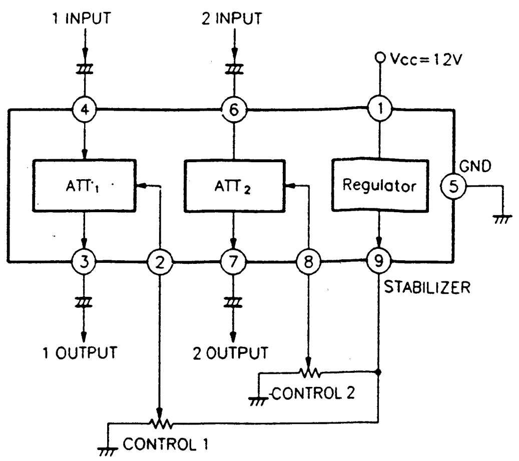

1 INPUT
2 INPUT
Vcc=12V
ATT₁
ATT₂
Regulator
GND
STABILIZER
1 OUTPUT
2 OUTPUT
CONTROL 2
CONTROL 1

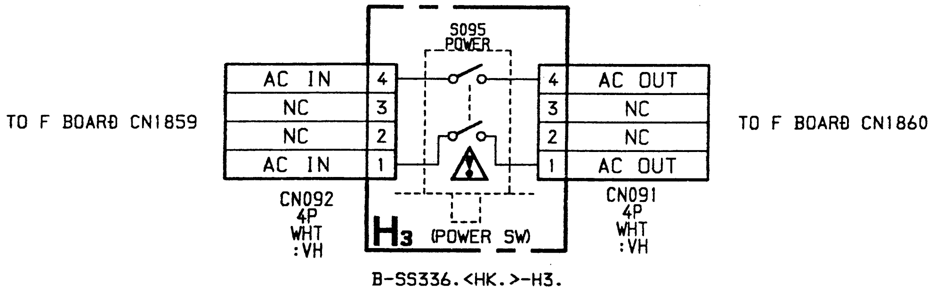

H2
HEADPHONE IN/OUT SELECT
TO SPEAKER
CN2204 8P YEL-L :S-MICRO
SP L (+)
SP L (-)
SP R (+)
SP R (-)
TSP L (+)
TSP L (-)
TSP R (+)
TSP R (-)
TO J BOARD CN2308
CN2205 5P BLK-L :S-MICRO
L AMP (+)
SP L (-)
R AMP (+)
SP R (-)
HP-MUTE
J2202
HP
J2201
SUB HP
J2200
S OUT
VIDEO
(L/MONO) AUDIO
(R)
INPUT FRONT OUTPUT
S2200
AUDIO (L)
PROTECT
MUTE
IC2201 μPC4557C
SUB HP VOL
IC2200 μPC1406HA
SUB HP VOL
CN2207 7P WHT-L :S-MICRO
IN/OUT
SUB MUTE
12V
GND
VOL
ST5V
STBY
TO A BOARD CN1123
SL IN
GND
GND
SR IN
TO A BOARD CN1122
CN2206 4P RED-L :S-MICRO
Q2204 2SA1309A
Q2205 2SC3311A
CN2203 11P RED (-L) :S-MICRO
GND
FRONT R IN
FRONT L IN
FRONT V IN
FRONT C IN
FRONT Y IN
FRONT S-SW
TO B BOARD CN307
CN2202 10P WHT (-L) :S-MICRO
FRONT R OUT
FRONT L OUT
FRONT V OUT
FRONT C OUT
FRONT Y OUT
TO B BOARD CN306
CN2200 2P WHT (-L) :S-MICRO
KEY
TO H1 BOARD CN2100
CN2201 4P WHT (-L) :S-MICRO
TO CRT BKT
B-SS336.<HK.>-H2.

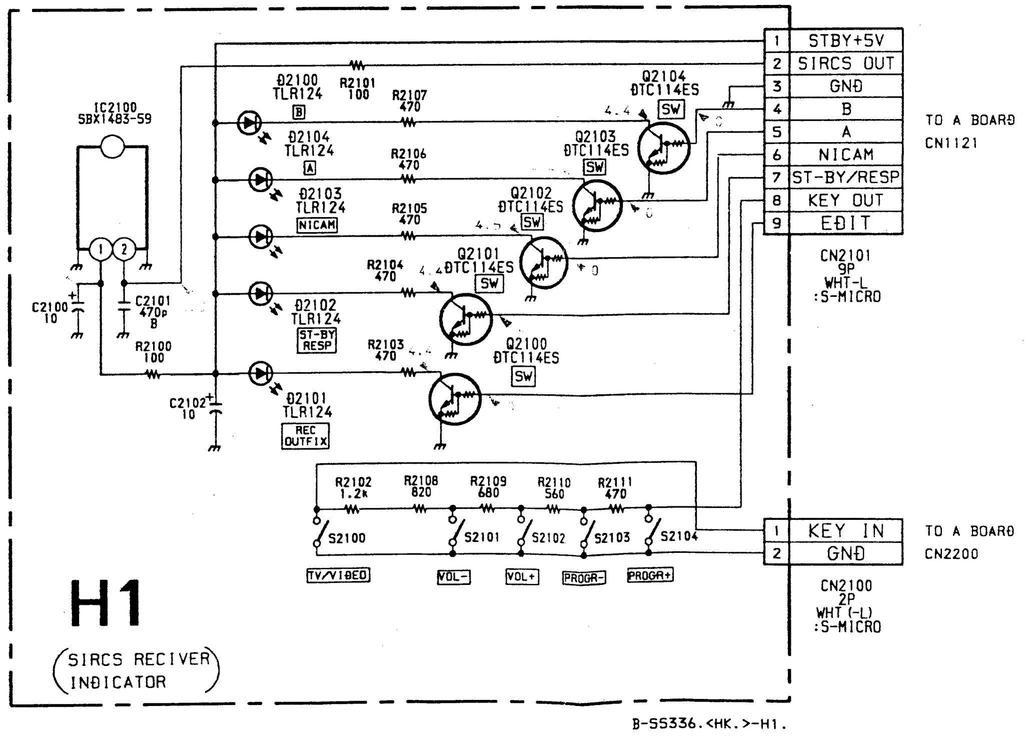

H1
SIRCS RECIVER INDICATOR
IC2100 SBX1483-59
D2100 TLR124
D2104 TLR124
D2103 TLR124 NICAM
D2102 TLR124 ST-BY RESP
D2101 TLR124 REC OUTFIX
Q2104 DTC114ES
Q2103 DTC114ES
Q2102 DTC114ES
Q2101 DTC114ES
Q2100 DTC114ES
SW
S2100
S2101
S2102
S2103
S2104
TV/VIDEO
VOL-
VOL+
PROGR-
PROGR+
B-SS36 - <HK.>-H1.

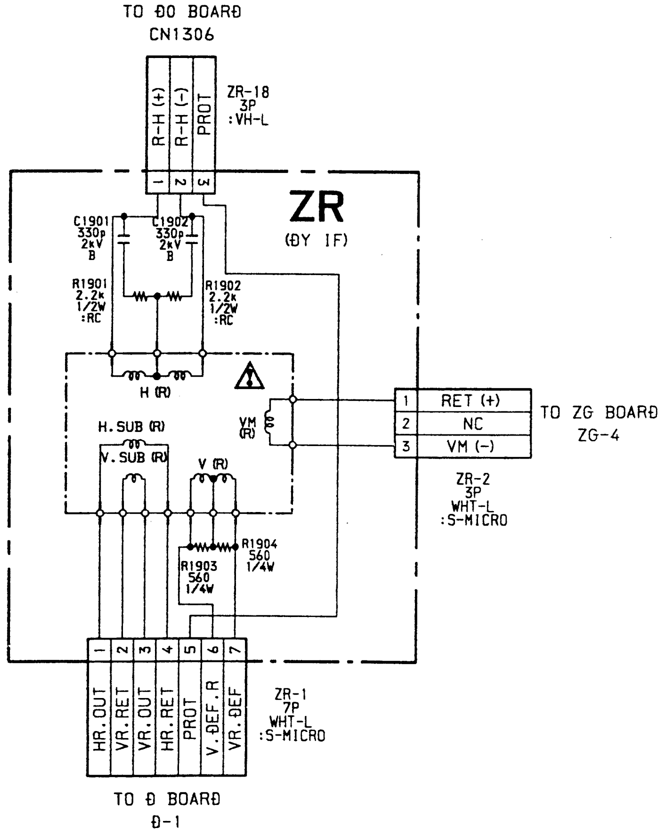

TO SPEAKER
CN2204 8P YEL-L :S-MICRO
SP L (+)
SP L (-)
SP R (+)
SP R (-)
TSP L (+)
TSP L (-)
TSP R (+)
TSP R (-)
TO J BOARD CN2308
L AMP (+)
SP L (-)
R AMP (+)
SP R (-)
HP-MUTE
CN2205 5P BLK-L :S-MICRO
D2207
PROTECT
IC2200 μPC1406HA
SUB HP VOL
CN2207 7P WHT-L :S-MICRO
IN/OUT
SUB MUTE
12V
GND
VOL
STSV
STBY
TO A BOARD CN1123
SL IN
GND
GND
SR IN
TO A BOARD CN1122
CN2206 4P RED-L :S-MICRO
Q2204 2SA1309A MUTE
Q2205 2SC3311A MUTE
S2201 S2202 S2203 S2204
MENU ENTER DOWN UP
FRONT C OUT
FRONT Y OUT
GND
CN2202 10P WHT (-L) :S-MICRO
CN2200 2P WHT (-L) :S-MICRO
KEY
GND
TO H1 BOARD CN2100
CN2201 4P WHT (-L) :S-MICRO
TO CRT BKT
B-SS336.<HK.>-H2.

H2 Board IC2200 μPC1406HA


1 INPUT
2 INPUT
Vcc=12V
ATT1
ATT2
Regulator
GND
STABILIZER
1 OUTPUT
2 OUTPUT
CONTROL 1
CONTROL 2

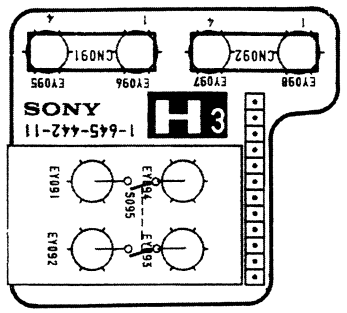

S095 POWER
AC IN
NC
NC
AC IN
AC OUT
NC
NC
AC OUT
TO F BOARD CN1859
TO F BOARD CN1860
CN092 4P WHT :VH
CN091 4P WHT :VH
H3 (POWER SW)
B-SS336.<HK.>-H3.


IC2100 SBX1483-59
D2100 TLR124 B
D2104 TLR124 A
D2103 TLR124 NICAM
D2102 TLR124 ST-BY RESP
D2101 TLR124 REC OUTFIX
Q2104 DTC114ES SW
Q2103 DTC114ES SW
Q2102 DTC114ES SW
Q2101 DTC114ES SW
Q2100 DTC114ES SW
STBY+5V
SIRCS OUT
GND
B
A
NICAM
ST-BY/RESP
KEY OUT
EDIT
TO A BOARD CN1121
CN2101 9P WHT-L :S-MICRO
S2100 S2101 S2102 S2103 S2104
TV/VIDEO
VOL-
VOL+
PROGR-
PROGR+
KEY IN
GND
TO A BOARD CN2200
CN2100 2P WHT (-L) :S-MICRO
H1
(SIRCS RECIVER INDICATOR)
B-SS336.<HK.>-H1.

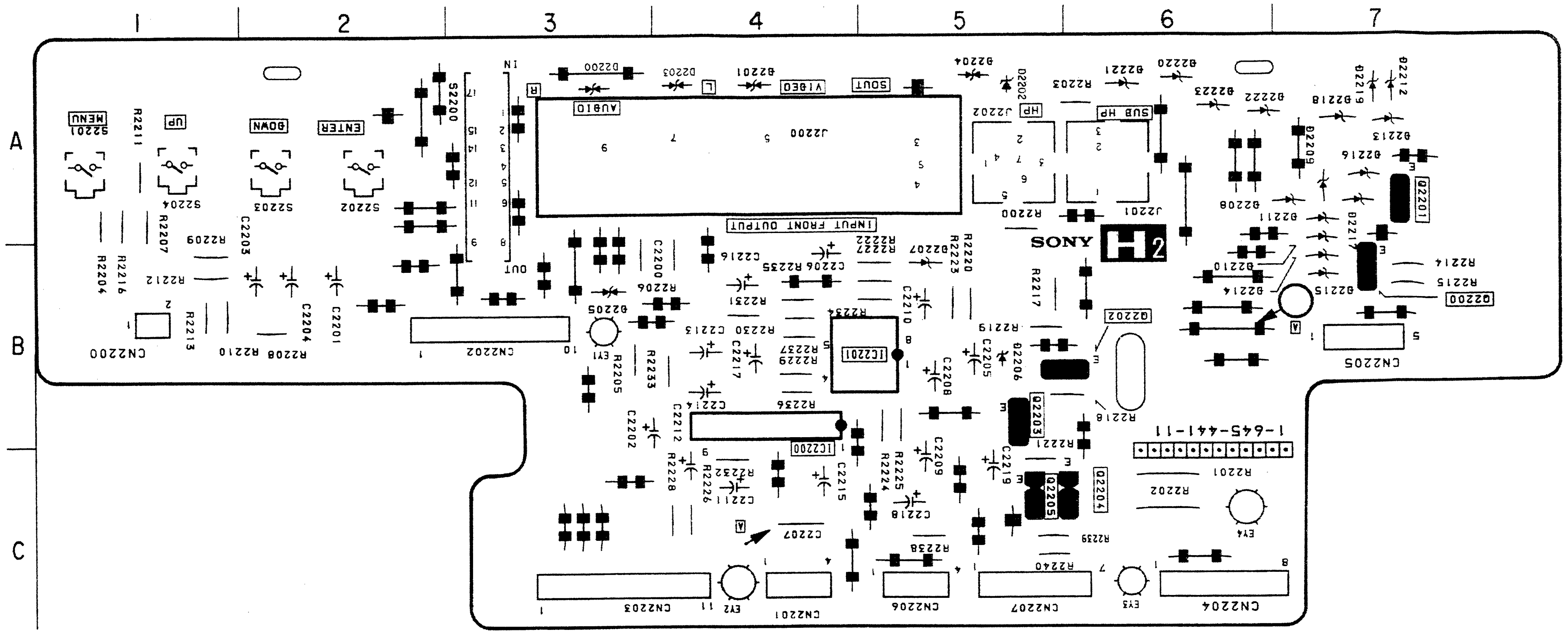

TO DD BOARD CN1306
R-H (+)
R-H (-)
PROT
ZR-18 3P :VH-L
ZR
(DY IF)
C1901 330p 2kV B
C1902 330p 2kV B
R1901 2.2k 1/2W :RC
R1902 2.2k 1/2W :RC
H (R)
H.SUB (R)
V.SUB (R)
V (R)
VM (R)
R1903 560 1/4W
R1904 560 1/4W
RET (+)
NC
VM (-)
TO ZG BOARD ZG-4
ZR-2 3P WHT-L :S-MICRO
HR.OUT
VR.RET
VR.OUT
HR.RET
PROT
V.DEF.R
VR.DEF
ZR-1 7P WHT-L :S-MICRO
TO D BOARD D-1

ZR [DY I/F] **H3** [POWER SW] **H2** [HEADPHONE IN / OUT SELECT] **H1** [SIRCS RECIVER INDICATOR]

—H3 Board—


SONY
H3
1-645-442-11
CN091
CN092
EY091
EY092
EY094
EY095
S095

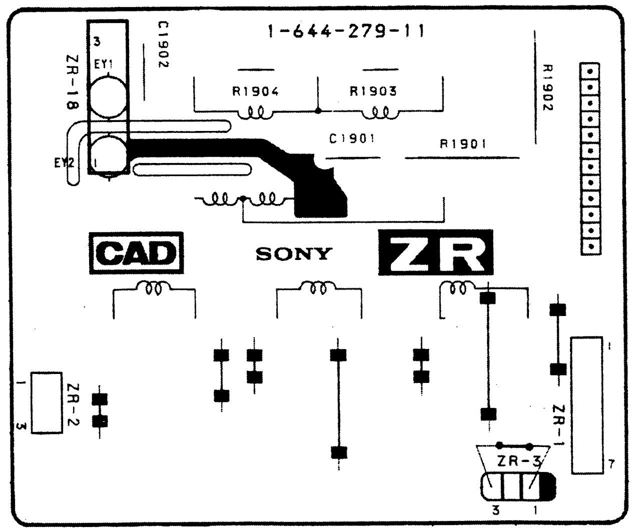
—H2 Board—


1
2
3
4
5
6
7
A
B
C
SONY
H2
1-645-441-11
MENU
UP
DOWN
ENTER
S2200
AUDIO
VIDEO
SOUT
HP
SUB HP
INPUT FRONT OUTPUT
IC2200
IC2201
Q2200
Q2201
Q2202
Q2203
Q2204
Q2205
CN2200
CN2201
CN2202
CN2203
CN2204
CN2205
CN2206
CN2207
J2200
J2201
J2202
EY1
EY3
EY4

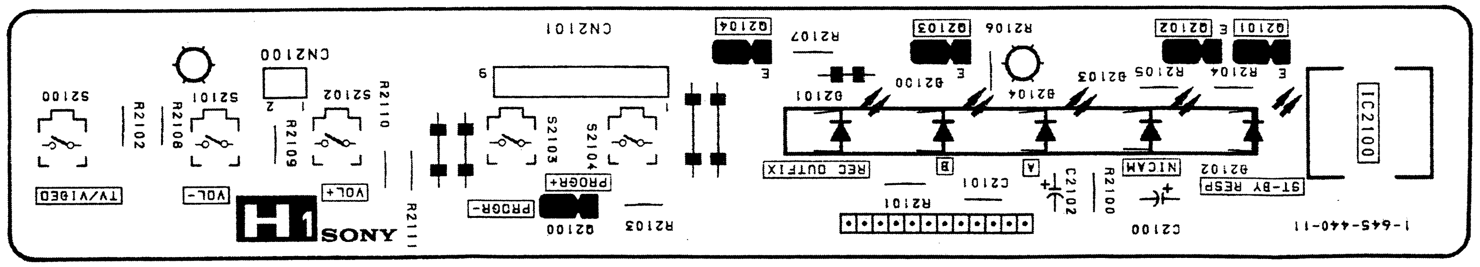
H2 Board

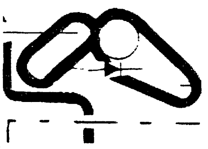
IC	
IC2200	A-4
2201	B-4
TRANSISTOR	
Q2200	B-1
2201	C-1
2202	B-3
2203	A-3
2204	A-3
2205	A-3
DIODE	
D2200	C-5
2201	C-4
2203	C-3
2204	C-3
2205	C-3
2207	B-5
2208	B-4
2209	C-2
2210	C-2
2211	B-2
2212	B-2
2213	C-1
2214	B-2
2215	B-2
2216	C-1
2217	C-1
2218	C-2
2219	C-1
2220	C-2
2221	C-3
2222	C-2
2223	C-2

—ZR Board—

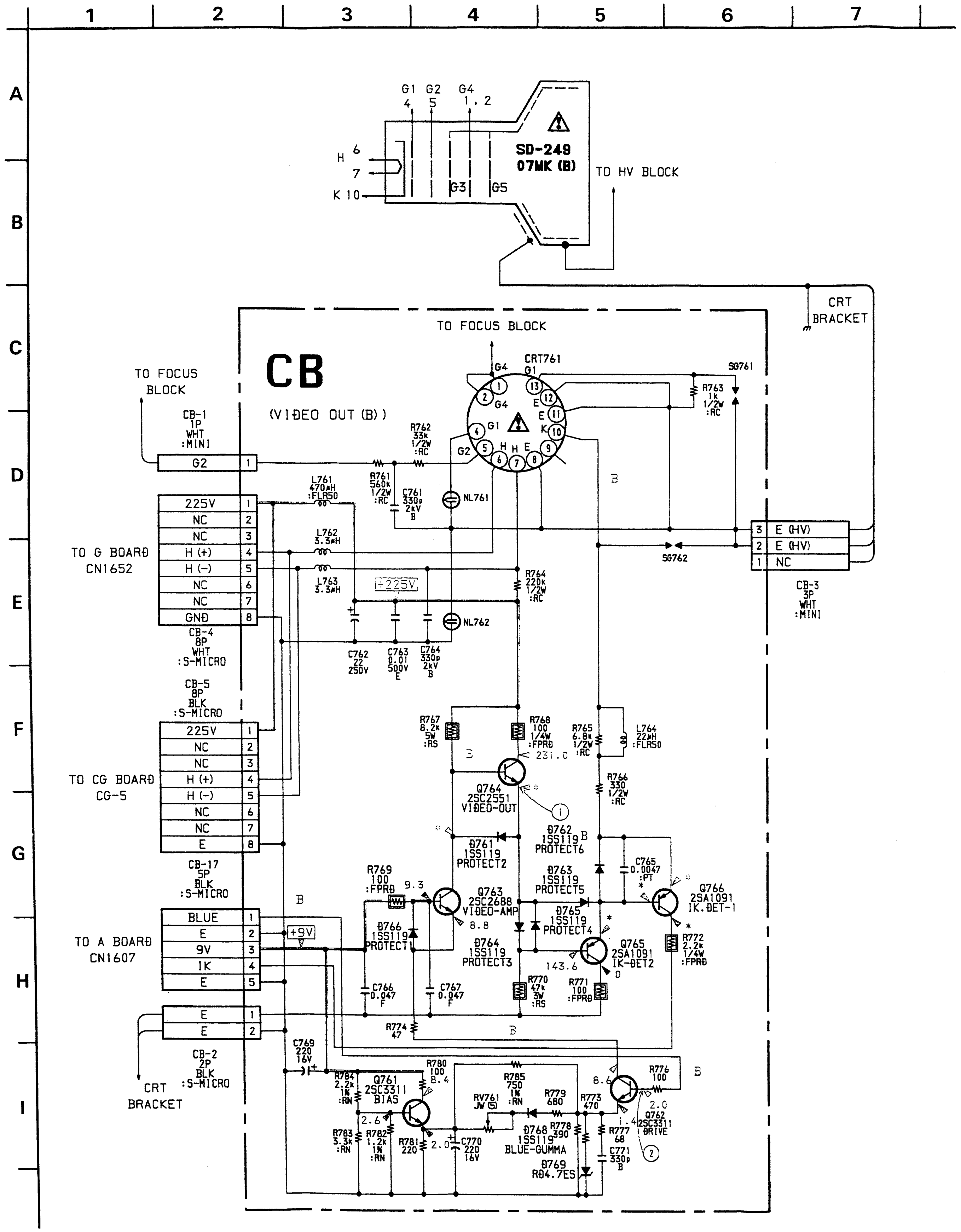

1-644-279-11
C1902
ZR-1B
EY1
EY2
R1904
R1903
C1901
R1901
R1902
CAD
SONY
ZR
ZR-2
ZR-3
ZR-1

—H1 Board—

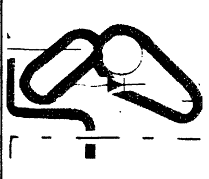

H1
SONY
1-645-440-11
CN2101
CN2100
S2100
S2101
S2102
S2103
S2104
TV/VIDEO
VOL-
VOL+
PROGR+
PROGR-
REC OUTFIX
NICAM
ST-BY RESP
IC2100
Q2100
Q2101
Q2102
Q2103
Q2104



NOTE:
The circuit indicated as left contains high voltage of over 600 Vp-p. Care must be paid to prevent an electric shock in inspection or repairing.

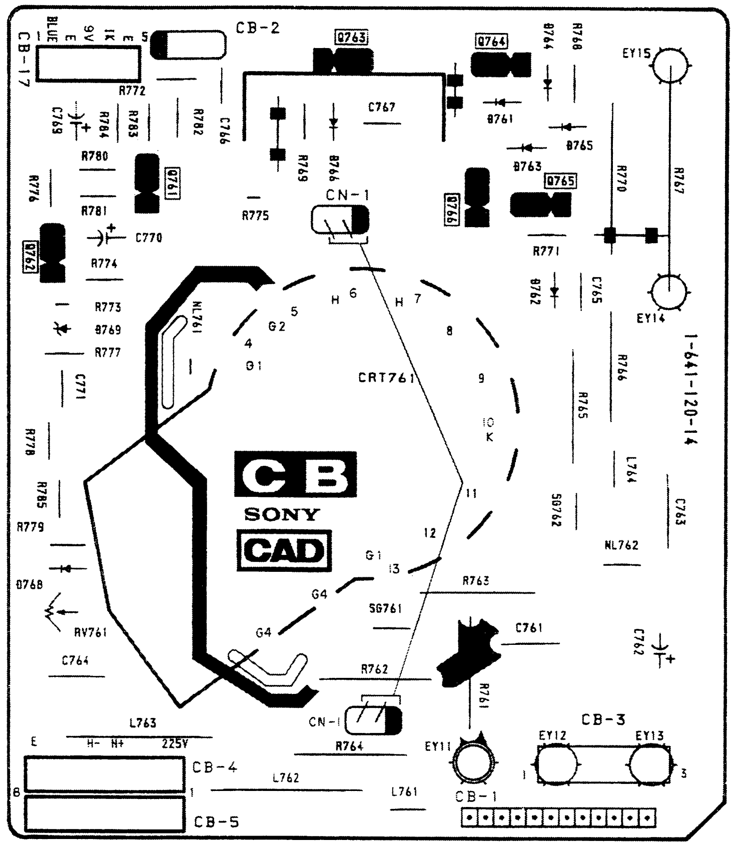

1
2
3
4
5
6
7
A
B
C
D
E
F
G
H
I
G1 G2 G4
4 5 1, 2
H 6
7
K 10
G3
G5
SD-249
07MK (B)
TO HV BLOCK
CRT
BRACKET
TO FOCUS BLOCK
CB
(VIDEO OUT (B))
TO FOCUS
BLOCK
CB-1
1P
WHT
:MINI
G2
CRT761
G4
G1
G4
G1
G2
H
H
E
K
E
E
R762
33k
1/2W
:RC
R761
560k
1/2W
:RC
C761
330p
2kV
B
NL761
L761
470μH
:FLR50
L762
3.3μH
L763
3.3μH
+225V
R764
220k
1/2W
:RC
NL762
C762
22
250V
C763
0.01
500V
E
C764
330p
2kV
B
R763
1k
1/2W
:RC
SG761
SG762
E (HV)
E (HV)
NC
CB-3
3P
WHT
:MINI
TO G BOARD
CN1652
225V
NC
NC
H (+)
H (-)
NC
NC
GND
CB-4
8P
WHT
:S-MICRO
CB-5
8P
BLK
:S-MICRO
TO CG BOARD
CG-5
225V
NC
NC
H (+)
H (-)
NC
NC
E
CB-17
5P
BLK
:S-MICRO
TO A BOARD
CN1607
BLUE
E
9V
IK
E
CRT
BRACKET
CB-2
2P
BLK
:S-MICRO
R767
8.2k
5W
:RS
R768
100
1/4W
:FPRD
231.0
R765
6.8k
1/2W
:RC
L764
22μH
:FLR50
R766
330
1/2W
:RC
Q764
2SC2551
VIDEO-OUT
D762
1SS119
PROTECT6
D761
1SS119
PROTECT2
R769
100
:FPRD
9.3
Q763
2SC2688
VIDEO-AMP
8.8
D763
1SS119
PROTECT5
C765
0.0047
:PT
Q766
2SA1091
IK.DET-1
D766
1SS119
PROTECT1
+9V
D765
1SS119
PROTECT4
D764
1SS119
PROTECT3
Q765
2SA1091
IK-DET2
143.6
0
R772
2.2k
1/4W
:FPRD
C766
0.047
F
C767
0.047
F
R770
47k
3W
:RS
R771
100
:FPRD
R774
47
C769
220
16V
R784
2.2k
1%
:RN
Q761
2SC3311
BIAS
R780
100
8.4
R785
750
1%
:RN
RV761
JW (5)
R779
680
R773
470
8.6
R776
100
2.0
Q762
2SC3311
DRIVE
1.4
2.6
R783
3.3k
:RN
R782
1.2k
1%
:RN
R781
220
2.0
C770
220
16V
D768
1SS119
BLUE-GUMMA
R778
390
R777
68
C771
330p
B
D769
RD4.7ES
B

CB [VIDEO OUT (B)]



NOTE:
The circuit indicated as left contains high voltage of o
600 Vp-p. Care must be paid to prevent an electr hock
inspection or repairing.

—CB Board—

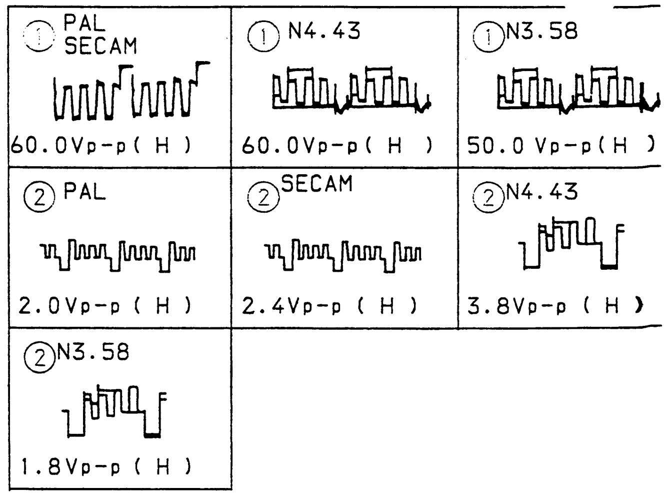

CB-17
CB-2
Q763
Q764
R772
C767
Q761
R780
R781
C770
R774
R773
D769
R777
C771
R778
R785
R779
D768
RV761
C764
CN-1
R775
Q766
Q765
D763
D761
D765
R771
R770
R767
EY15
EY14
CRT761
G1
G2
G4
H
K
R766
R765
L764
SG762
C763
NL762
NL761
R763
SG761
C761
C762
R762
R761
R764
L763
L762
L761
225V
CB-4
CB-5
CB-1
CB-3
EY11
EY12
EY13
1-641-120-14
CB
SONY
CAD

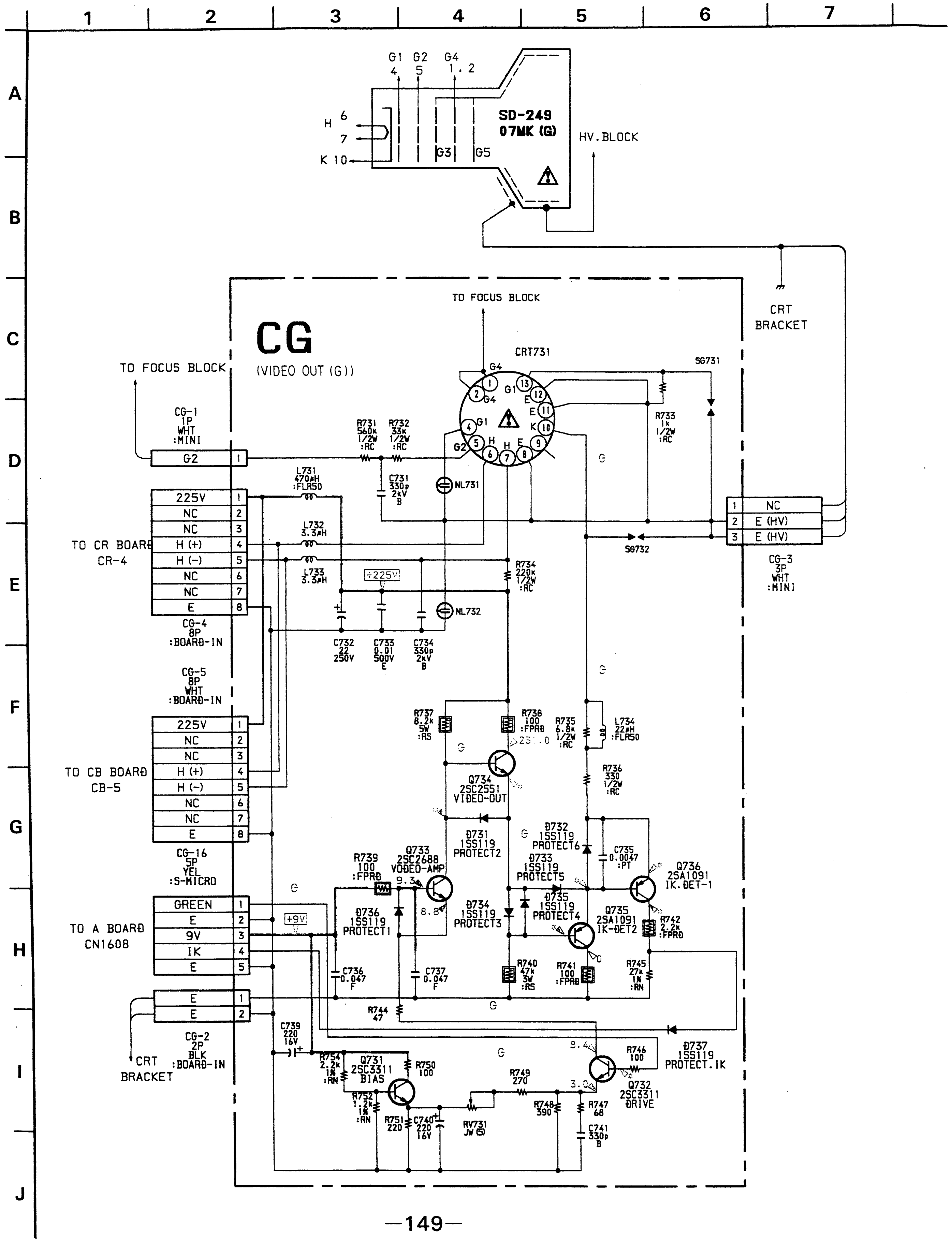
CB Board

As to the voltage Value shown by the mark ※ on the Schematic Diagram, see the another list.

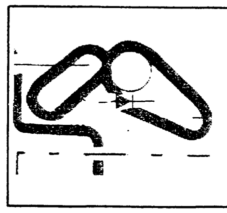
		PAL	SECAM	NTSC 4.43	NTSC 3.58
Q763	(C)	210.0	210.0	207.0	210.0
Q764	(B)	210.0	210.0	207.0	210.0
	(E)	210.0	232.0	206.0	209.0
Q765	(E)	198.0	198.0	206.0	209.0
Q766	(B)	196.0	198.0	206.0	209.0
	(C)	8.0	150.0	8.6	6.8
	(E)	206.0	208.0	196.0	200.0

CB Board Waveforms



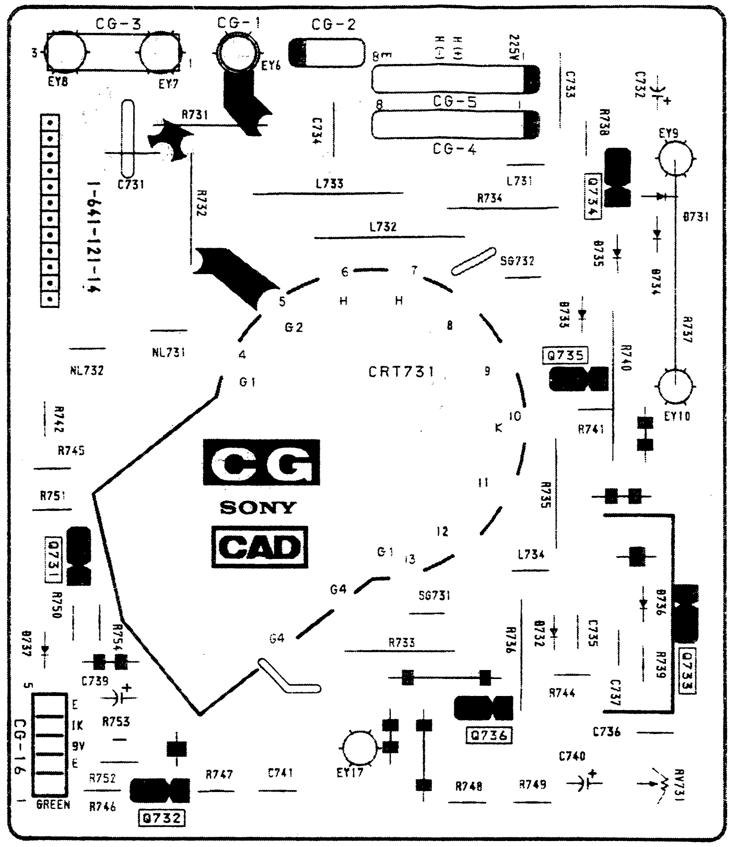

1
2
3
4
5
6
7
A
B
C
D
E
F
G
H
I
J
G1 G2 G4
4 5 1.2
H 6
7
K 10
G3
G5
SD-249
07MK (G)
HV.BLOCK
CRT
BRACKET
TO FOCUS BLOCK
CG
(VIDEO OUT (G))
TO FOCUS BLOCK
CG-1 1P WHT :MINI
G2 1
CRT731
G4 G1 E E K E H H G2 G1 G4
R731 560k 1/2W :RC
R732 33k 1/2W :RC
C731 330p 2kV B
NL731
SG731
R733 1k 1/2W :RC
L731 470µH :FLR50
L732 3.3µH
L733 3.3µH
225V
NC
NC
H (+)
H (-)
NC
NC
E
TO CR BOARD CR-4
CG-4 8P :BOARD-IN
÷225V
C732 22 250V
C733 0.01 500V E
C734 330p 2kV B
NL732
R734 220k 1/2W :RC
SG732
1 NC
2 E (HV)
3 E (HV)
CG-3 3P WHT :MINI
CG-5 8P WHT :BOARD-IN
TO CB BOARD CB-5
R737 8.2k 5W :RS
R738 100 :FPRD
251.0
R735 6.8k 1/2W :RC
L734 22µH :FLR50
R736 330 1/2W :RC
Q734 2SC2551 VIDEO-OUT
D731 1SS119 PROTECT2
D732 1SS119 PROTECT6
D733 1SS119 PROTECT5
C735 0.0047 :PT
Q736 2SA1091 IK.DET-1
CG-16 5P YEL :S-MICRO
R739 100 :FPRD
Q733 2SC2688 VODEO-AMP
9.3
8.8
D736 1SS119 PROTECT1
D734 1SS119 PROTECT3
D735 1SS119 PROTECT4
Q735 2SA1091 IK-DET2
R742 2.2k :FPRD
GREEN
E
9V
IK
E
TO A BOARD CN1608
+9V
C736 0.047 F
C737 0.047 F
R740 47k 3W :RS
R741 100 :FPRD
R745 27k 1% :RN
E
E
CG-2 2P BLK :BOARD-IN
CRT BRACKET
R744 47
D737 1SS119 PROTECT.IK
C739 220 16V
R754 2.2k 1% :RN
Q731 2SC3311 BIAS
R750 100
9.4
R746 100
R749 270
3.0
Q732 2SC3311 DRIVE
R752 1.2k 1% :RN
R751 220
C740 220 16V
RV731 JW(5)
R748 390
R747 68
C741 330p B

CG [VIDEO OUT (G)]



NOTE:
The circuit indicated as left contains high voltage of over 600 Vp-p. Care must be paid to prevent an electric shock in inspection or repairing.

—CG Board—

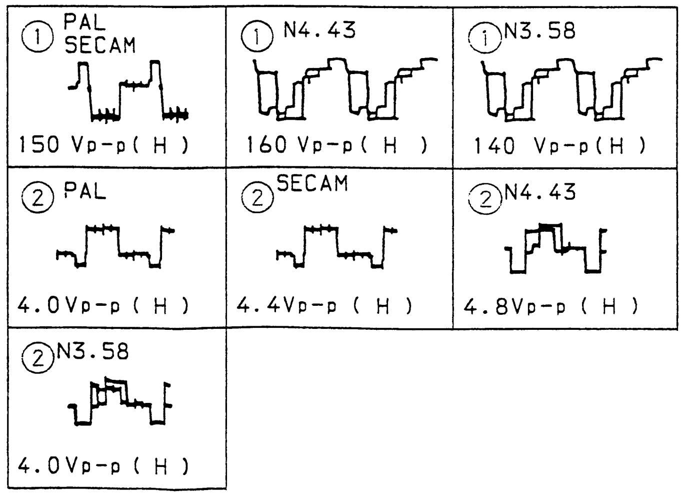

CG-3
CG-1
CG-2
EY8
EY7
EY6
CG-5
CG-4
R731
C731
1-641-121-14
L733
L731
R734
L732
SG732
C733
C732
R738
Q734
EY9
D731
CRT731
G2
G1
H
K
NL731
NL732
R742
R745
R751
Q731
R750
Q735
R740
EY10
R741
SG731
R733
L734
Q736
C736
C740
RV731
R748
R749
EY17
R747
C741
Q732
R746
R752
R753
C739
CG-16
GREEN
IK
9V
E
CG
SONY
CAD

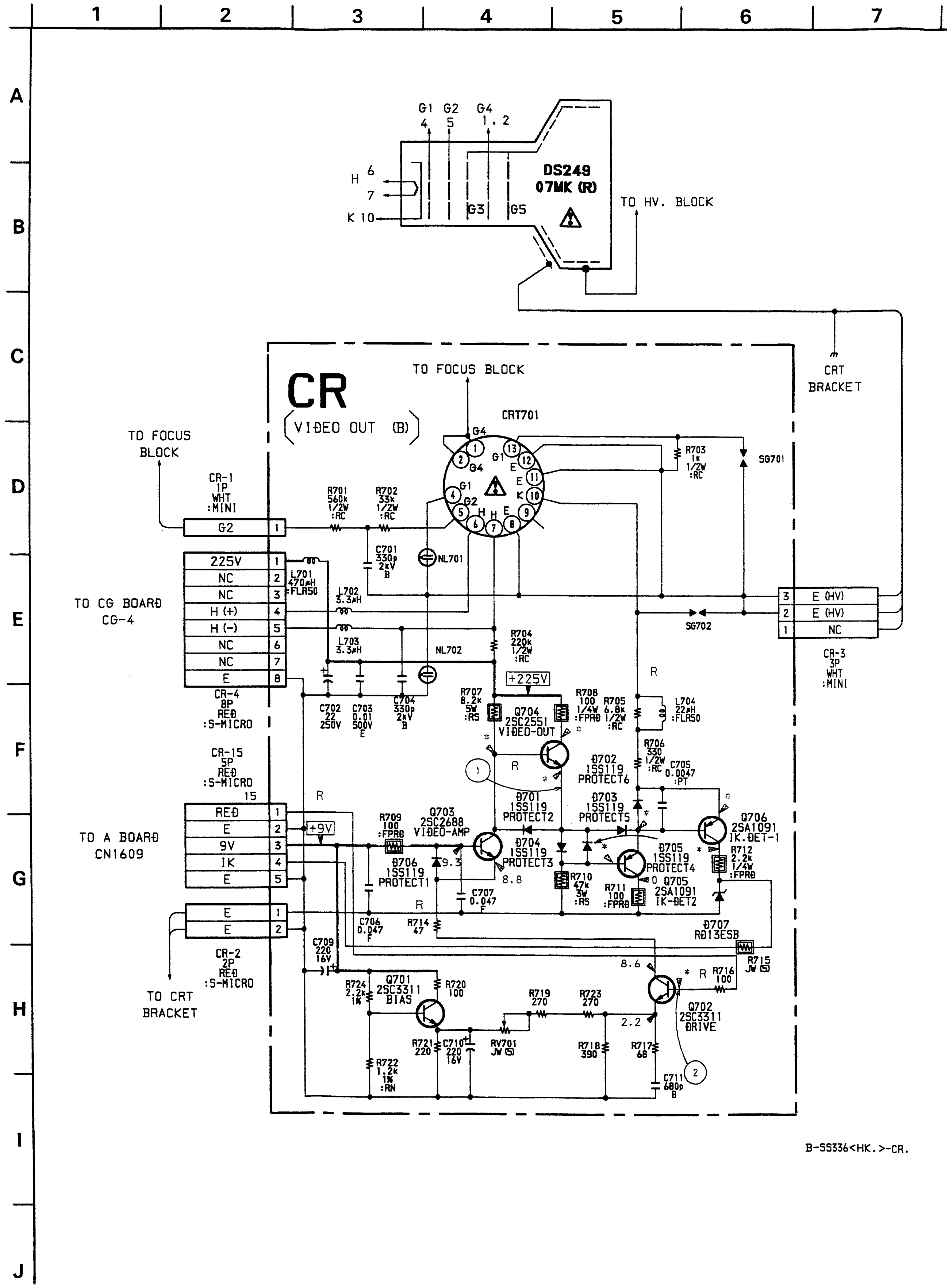
CG Board

As to the voltage Volue shown by the mark ※ on the Schematic Diagram, see the another list.

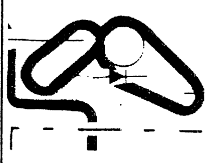
		PAL	SECAM	NTSC 4.43	NTSC 3.58
Q732	(B)	3.4	3.6	3.4	3.2
Q733	(C)	155.8	155.0	156.0	165.0
Q734	(B)	155.8	155.0	156.0	165.0
	(E)	155.3	154.0	156.3	164.9
Q735	(B)	154.5	153.8	156.0	164.3
	(E)	154.6	153.0	156.0	164.4
Q736	(B)	154.6	153.0	156.0	164.4
	(C)	5.5	6.1	5.4	4.4
	(E)	154.0	152.5	155.0	163.5

CG Board Waveforms



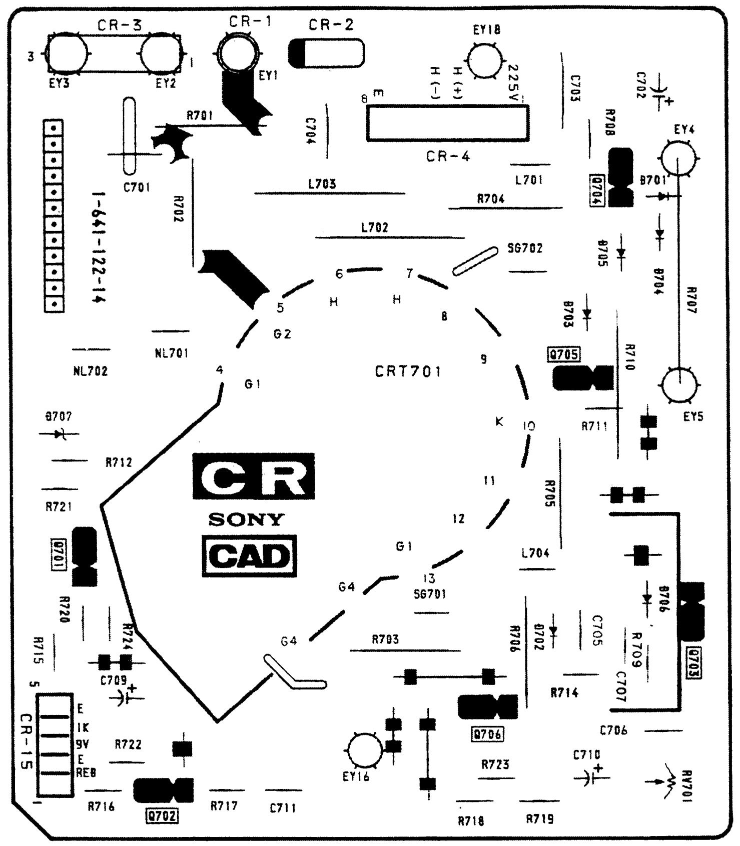

1
2
3
4
5
6
7
A
B
C
D
E
F
G
H
I
J
G1 G2 G4
4 5 1, 2
H 6
7
K 10
G3
G5
DS249
07MK (R)
TO HV. BLOCK
CRT
BRACKET
CR
VIDEO OUT (B)
TO FOCUS BLOCK
CRT701
TO FOCUS
BLOCK
CR-1
1P
WHT
:MINI
G2
225V
NC
NC
H (+)
H (−)
NC
NC
E
CR-4
8P
RED
:S-MICRO
TO CG BOARD
CG-4
CR-15
5P
RED
:S-MICRO
RED
E
9V
IK
E
TO A BOARD
CN1609
CR-2
2P
RED
:S-MICRO
TO CRT
BRACKET
E (HV)
E (HV)
NC
CR-3
3P
WHT
:MINI
SG701
SG702
NL701
NL702
+225V
+9V
Q704
2SC2551
VIDEO-OUT
Q703
2SC2688
VIDEO-AMP
Q701
2SC3311
BIAS
Q702
2SC3311
DRIVE
D701
1SS119
PROTECT2
D702
1SS119
PROTECT6
D703
1SS119
PROTECT5
D704
1SS119
PROTECT3
D705
1SS119
PROTECT4
D706
1SS119
PROTECT1
Q705
2SA1091
IK-DET2
Q706
2SA1091
IK.DET-1
D707
RD13ESB
B-SS336<HK.>-CR.

CR [VIDEO OUT (R)]



NOTE:
The circuit indicated as left contains high voltage of ove
600 Vp-p. Care must be paid to prevent an electric shock i
inspection or repairing.

—CR Board—

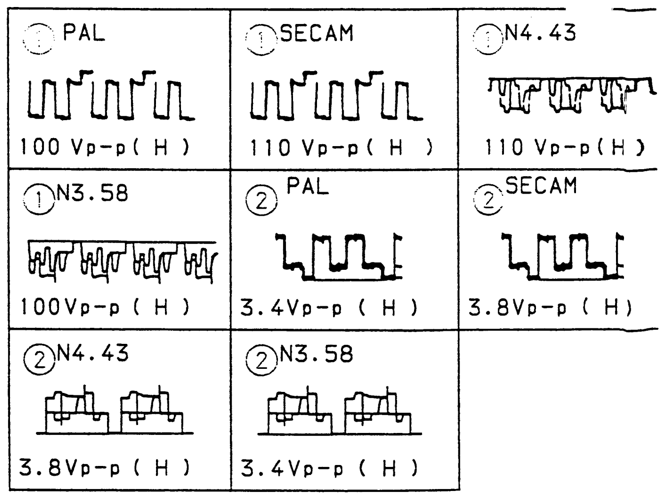

CR-3
CR-1
CR-2
EY3
EY2
EY1
EY18
CR-4
EY4
EY5
EY16
CRT701
1-641-122-14
CR SONY CAD
CR-15
C701
R701
L703
L701
L702
SG702
SG701
NL701
NL702
Q701
Q702
Q703
Q704
Q705
Q706

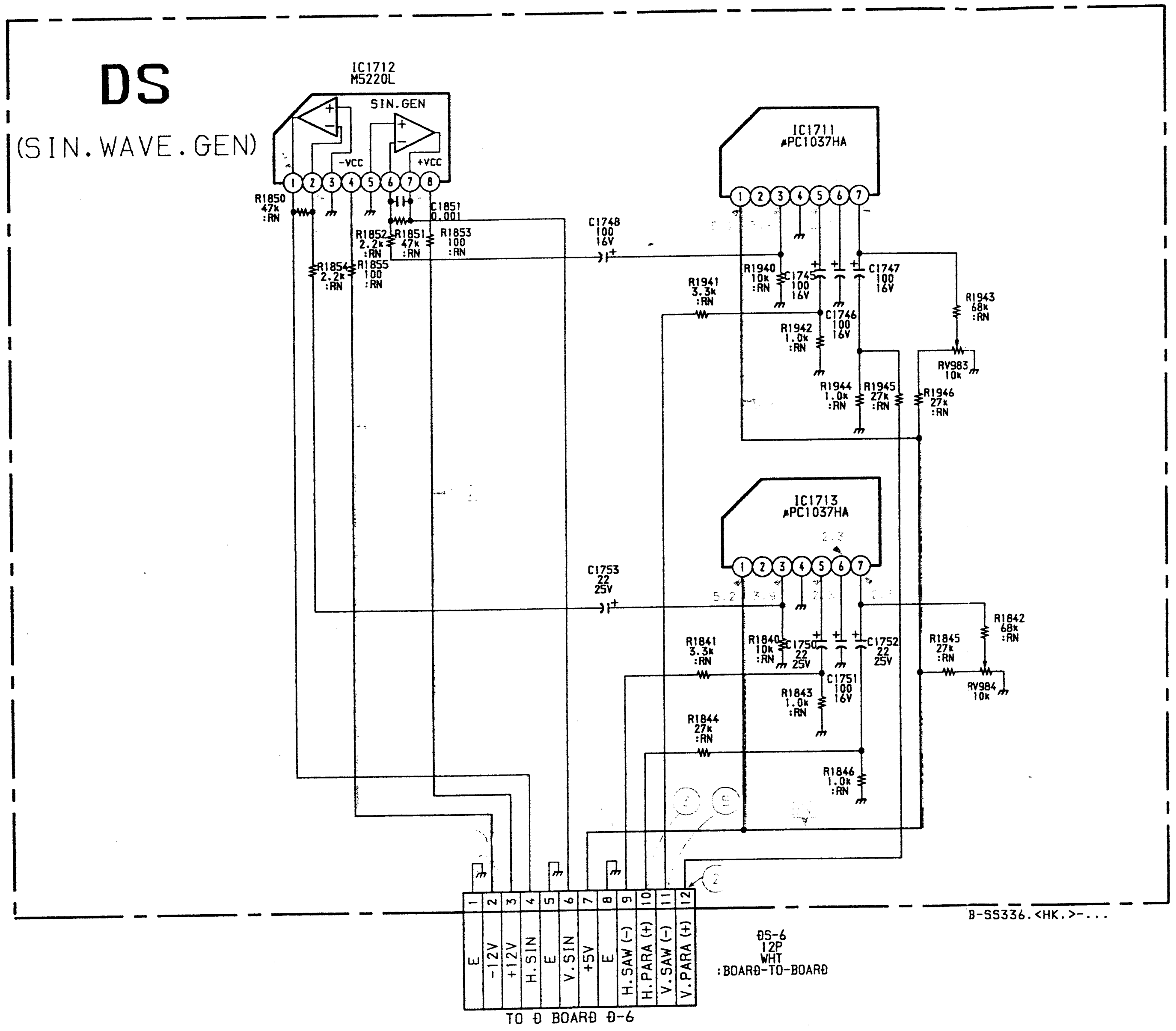
CR Board

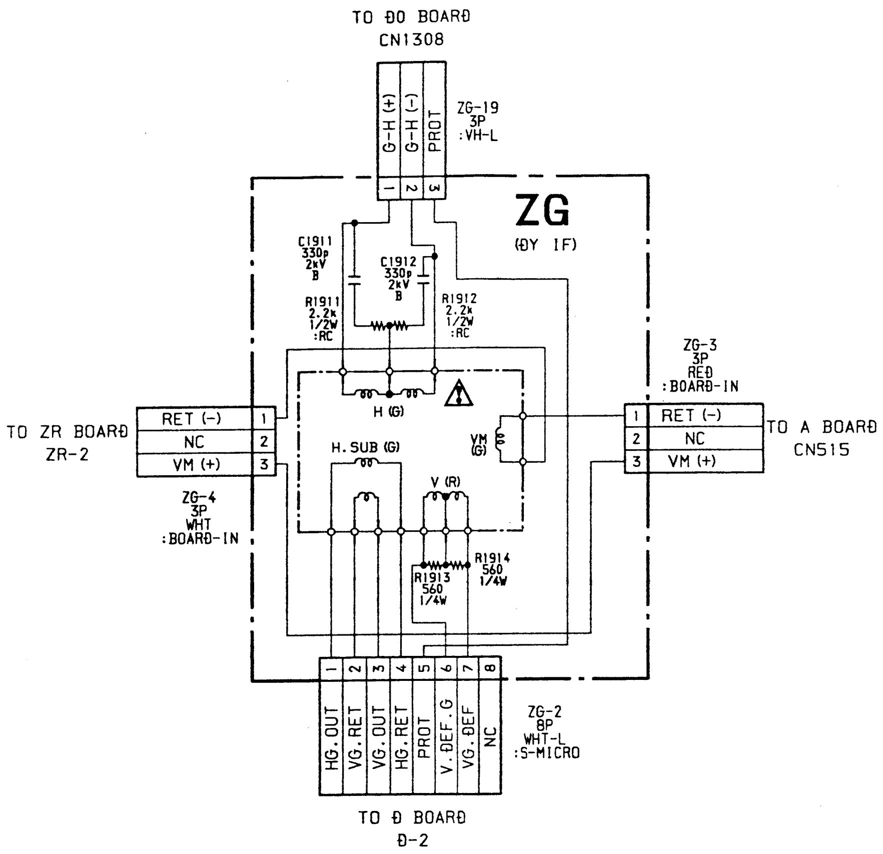
As to the voltage Value shown by the mark ※ on the Schematic Diagram, see the another list.

		PAL	SECAM	NTSC 4.43	NTSC 3.58
Q702	(B)	2.6	2.8	2.7	2.5
Q703	(C)	195.0	190.0	195.0	200.0
Q704	(B)	195.0	190.0	195.0	200.0
	(C)	195.0	231.0	231.0	231.0
	(E)	231.0	190.0	194.0	201.0
Q705	(B)	191.0	1.1	194.0	199.0
	(E)	195.0	189.0	194.0	200.0
Q706	(B)	195.0	189.0	194.0	200.0
	(C)	6.4	9.1	7.3	6.5
	(E)	191.0	184.0	190.0	195.0

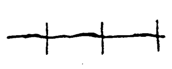
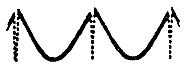
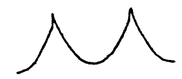
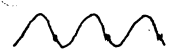
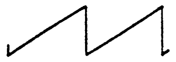
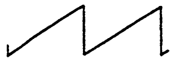
CR Board Waveforms

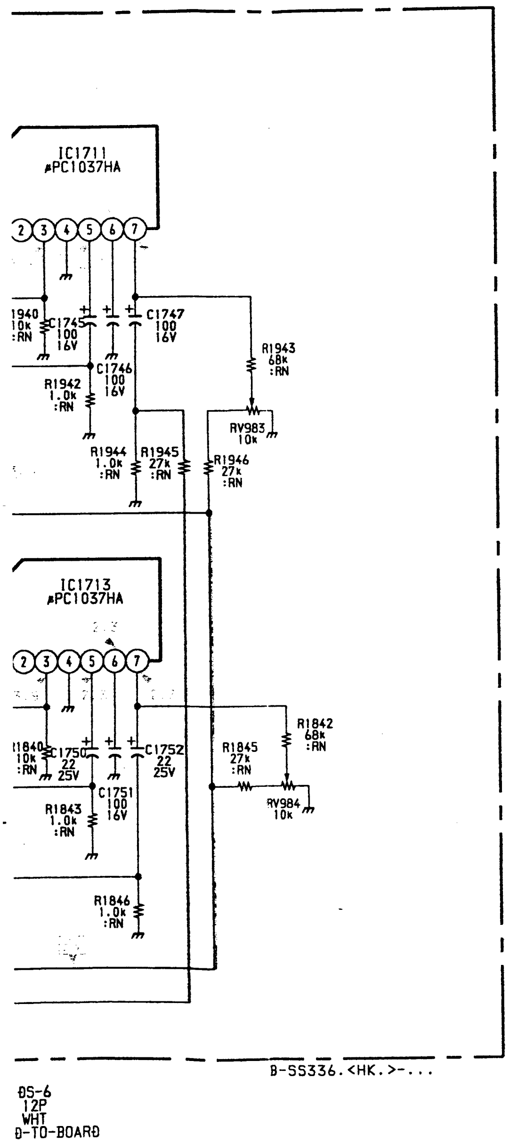


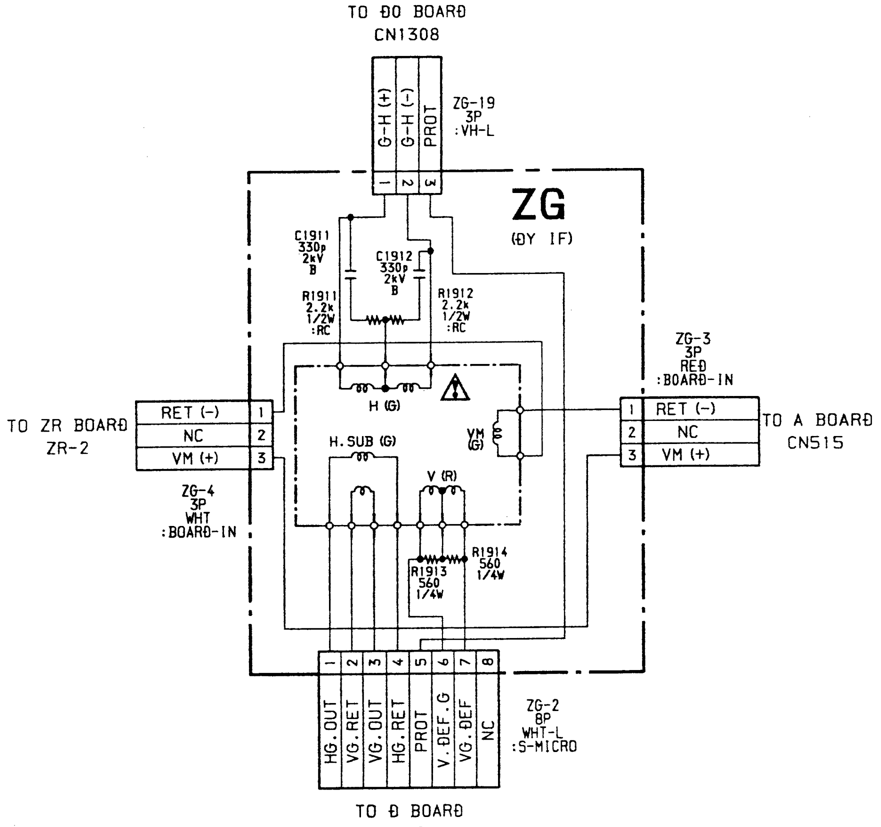

DS
(SIN.WAVE.GEN)
IC1712
M5220L
SIN.GEN
-VCC
+VCC
R1850
47k
:RN
C1851
0.001
R1852
2.2k
:RN
R1851
47k
:RN
R1853
100
:RN
R1854
2.2k
:RN
R1855
100
:RN
C1748
100
16V
IC1711
µPC1037HA
R1940
10k
:RN
C1745
100
16V
C1747
100
16V
R1941
3.3k
:RN
C1746
100
16V
R1942
1.0k
:RN
R1943
68k
:RN
RV983
10k
R1944
1.0k
:RN
R1945
27k
:RN
R1946
27k
:RN
IC1713
µPC1037HA
C1753
22
25V
R1841
3.3k
:RN
R1840
10k
:RN
C1750
22
25V
C1752
22
25V
C1751
100
16V
R1843
1.0k
:RN
R1842
68k
:RN
R1845
27k
:RN
RV984
10k
R1844
27k
:RN
R1846
1.0k
:RN
E
-12V
+12V
H.SIN
E
V.SIN
+5V
E
H.SAW (-)
H.PARA (+)
V.SAW (-)
V.PARA (+)
DS-6
12P
WHT
:BOARD-TO-BOARD
TO D BOARD D-6
B-SS336.<HK.>-...


TO DO BOARD
CN1308
G-H (+)
G-H (-)
PROT
ZG-19
3P
:VH-L
ZG
(DY IF)
C1911
330p
2kV
B
C1912
330p
2kV
B
R1911
2.2k
1/2W
:RC
R1912
2.2k
1/2W
:RC
H (G)
H. SUB (G)
VM (G)
V (R)
R1913
560
1/4W
R1914
560
1/4W
TO ZR BOARD
ZR-2
RET (-)
NC
VM (+)
ZG-4
3P
WHT
:BOARD-IN
ZG-3
3P
RED
:BOARD-IN
TO A BOARD
CN515
HG.OUT
VG.RET
VG.OUT
HG.RET
PROT
V.DEF.G
VG.DEF
NC
ZG-2
8P
WHT-L
:S-MICRO
TO D BOARD
D-2

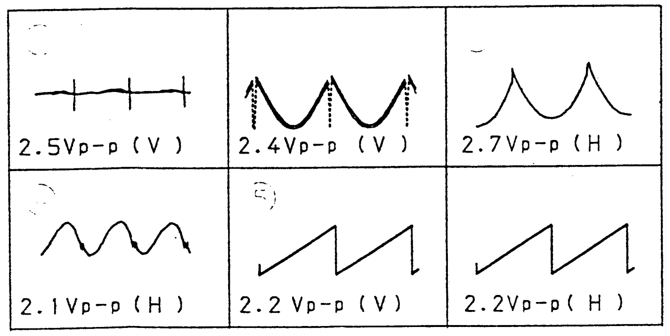
DS Board Waveforms

 2.5Vp-p (V)	 2.4Vp-p (V)	 2.7Vp-p (H)
 2.1Vp-p (H)	 2.2 Vp-p (V)	 2.2Vp-p(H)


IC1711
μPC1037HA
2 3 4 5 6 7
1940 10k :RN
C1745 100 16V
C1747 100 16V
C1746 100 16V
R1942 1.0k :RN
R1943 68k :RN
RV983 10k
R1944 1.0k :RN
R1945 27k :RN
R1946 27k :RN
IC1713
μPC1037HA
2 3 4 5 6 7
1840 10k :RN
C1750 22 25V
C1752 22 25V
R1842 68k :RN
R1845 27k :RN
RV984 10k
C1751 100 16V
R1843 1.0k :RN
R1846 1.0k :RN
B-SS336.<HK.>-...
DS-6
12P
WHT
D-TO-BOARD

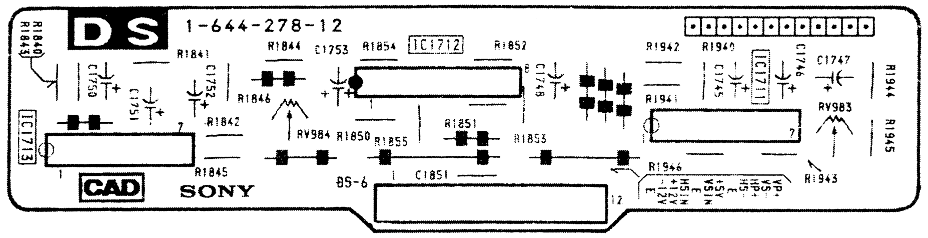

TO DD BOARD
CN1308
G-H (+)
G-H (-)
PROT
ZG-19
3P
:VH-L
1 2 3
ZG
(DY IF)
C1911
330p
2kV
B
C1912
330p
2kV
B
R1911
2.2k
1/2W
:RC
R1912
2.2k
1/2W
:RC
H (G)
H.SUB (G)
V (R)
VM (G)
R1913
560
1/4W
R1914
560
1/4W
TO ZR BOARD
ZR-2
1 RET (-)
2 NC
3 VM (+)
ZG-4
3P
WHT
:BOARD-IN
ZG-3
3P
RED
:BOARD-IN
1 RET (-)
2 NC
3 VM (+)
TO A BOARD
CN515
1 HG.OUT
2 VG.RET
3 VG.OUT
4 HG.RET
5 PROT.G
6 V.DEF.G
7 VG.DEF
8 NC
ZG-2
8P
WHT-L
:S-MICRO
TO D BOARD
D-2

DS Board Waveforms

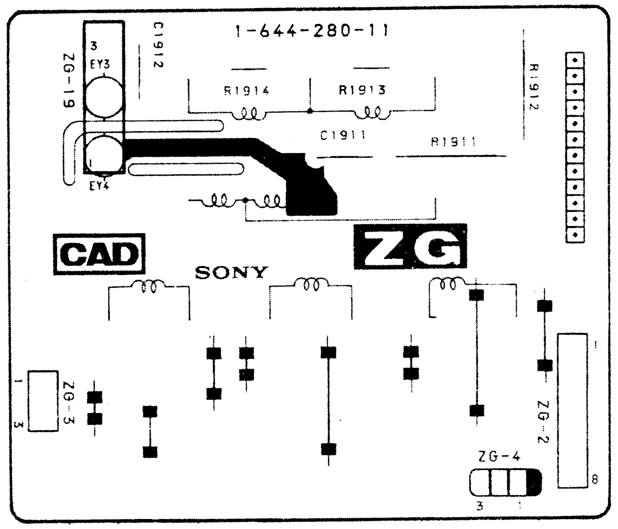


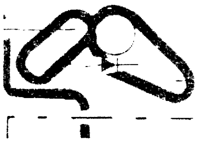
DS [SIN. WAVE. GEN] **ZG** [DY I/F]

—DS Board—


DS
1-644-278-12
R1840
R1843
R1841
R1844
C1753
R1854
IC1712
R1852
R1942
R1940
C1747
R1944
R1945
IC1713
C1750
C1751
C1752
R1846
R1842
RV984
R1850
R1855
R1851
R1853
R1845
DS-6
C1851
C1746
C1745
IC1711
R1941
RV983
R1946
R1943
CAD
SONY

—ZG Board—

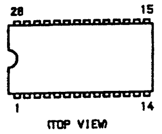

1-644-280-11
C1912
ZG-19
EY3
EY4
R1914
R1913
C1911
R1911
R1912
CAD
SONY
ZG
ZG-3
ZG-2
ZG-4



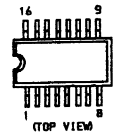
NOTE:
The circuit indicated as left contains high voltage of over 600 Vp-p. Care must be paid to prevent an electric shock in inspection or repairing.

5-5. SEMICONDUCTORS

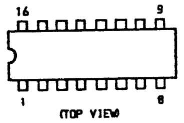
CXA1268P
CXK5864BSP-10L
MAB8461P-W220
SAA7280P/M3
TDA4580-V7
TDA4650/V4


28
15
1
14
(TOP VIEW)

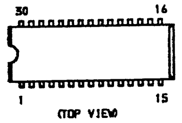
CXA1315M
MC14528BF
MC74HC4053F


16
9
1
8
(TOP VIEW)

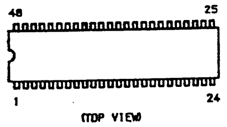
CXA1315P
IR3M02
MC14052BCP
TDA4660V2
μPD4053BC


16
9
1
8
(TOP VIEW)

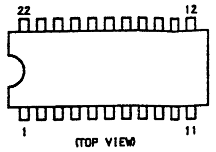
CXA1387S


30
16
1
15
(TOP VIEW)

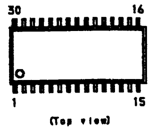
CXA1464AS
CXA1545S
SAA5246AP/T


48
25
1
24
(TOP VIEW)

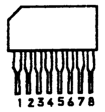
CXA1656S


22
12
1
11
(TOP VIEW)

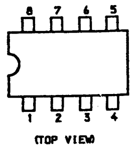
CXA1686M


30
16
1
15
(Top view)

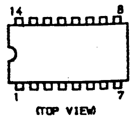
CX20125
LA7016
M5220L



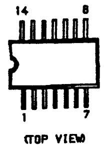
CX23025
LM393P
NE5532P
SDA9086-3
ST24C02AB1
TBA129
TDA1543
TL082CP
μPC393C
μPC4557C
μPC4558C


8 7 6 5
1 2 3 4
(TOP VIEW)

HD14013BP
MC14066BCP
MC14069UBF
SN74LS02S
μPC1394C


14
8
1
7
(TOP VIEW)

LM324N
MC14066BF
MC74HC4066F


14
8
1
7
(TOP VIEW)

LM7812CT
PQ09RF2
NJM78M05FA
RC7812FA
TA7805S
μPC2415HF
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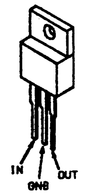

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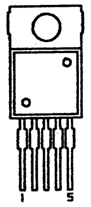

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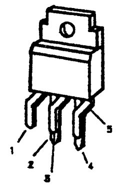

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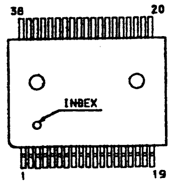
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INDEX
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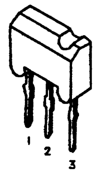

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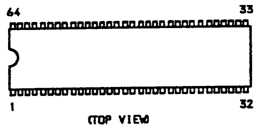
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32
(TOP VIEW)

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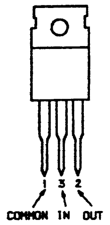
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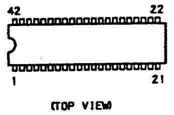
COMMON IN OUT

PA0036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(TOP VIEW)

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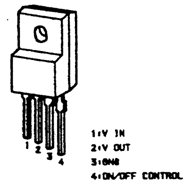
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1:V IN
2:V OUT
3:GND
4:ON/OFF CONTROL

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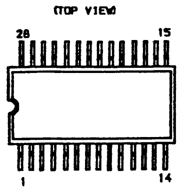
SDA9089XGEG


(TOP VIEW)
28
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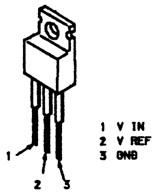
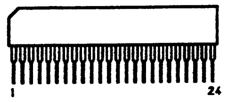
SE115N


1 V IN
2 V REF
3 GND
1
2
3

STK4278-L



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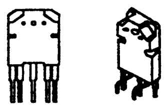

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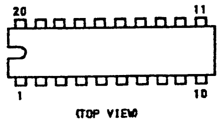
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(TOP VIEW)

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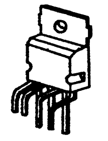

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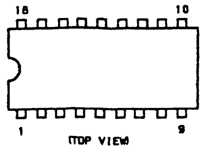
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(TOP VIEW)

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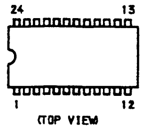
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(TOP VIEW)

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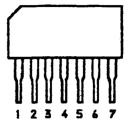

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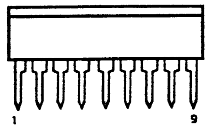

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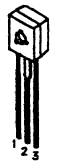

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DTC114EK
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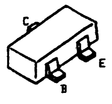

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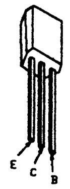
DTC144ES
DTC144WS



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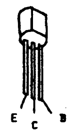

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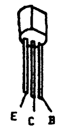

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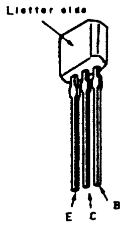
Lletter side
E
C
B

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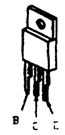
2SD2012



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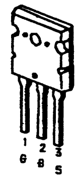

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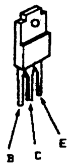

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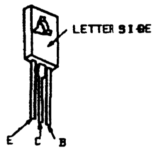
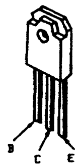

LETTER SIDE
E
C
B

2SC2555-2



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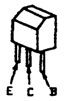
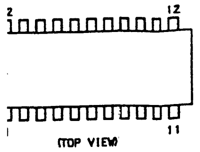


RS

CXA1656S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(TOP VIEW)

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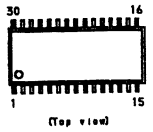
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(Top view)

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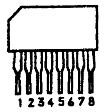

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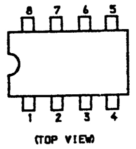
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1 2 3 4
(TOP VIEW)

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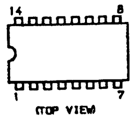
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(TOP VIEW)

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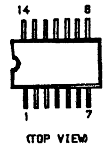
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(TOP VIEW)

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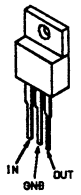

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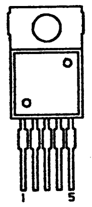
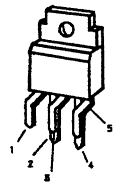
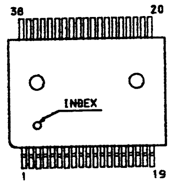


L780S12



MB90061-125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INDEX
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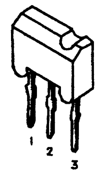
MN1280-S



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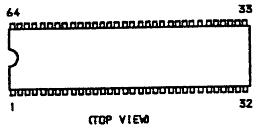
64
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32
(TOP VIEW)

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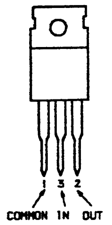
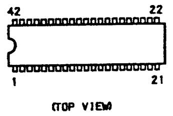
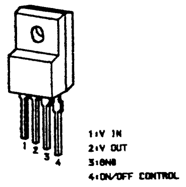

1 3 2
COMMON IN OUT

PA0036


42
22
1
21
(TOP VIEW)

PQ05RF2


1 2 3 4
1:V IN
2:V OUT
3:GND
4:ON/OFF CONTROL

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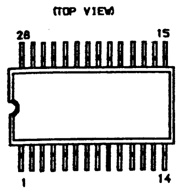
(TOP VIEW)
28
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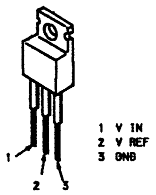
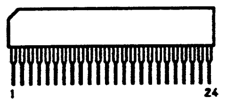
14

SE115N


1
2
3
1 V IN
2 V REF
3 GND

STK4278-L



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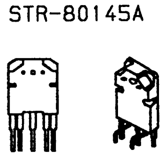

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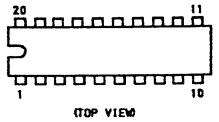
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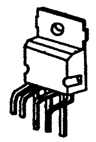
(TOP VIEW)

TDA2052



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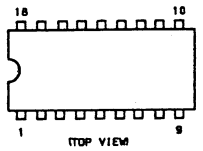
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(TOP VIEW)

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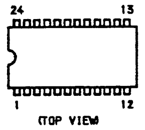
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13
1
12
(TOP VIEW)

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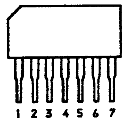

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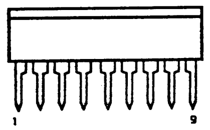

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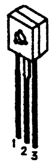

DTA114EK
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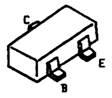
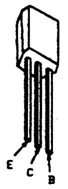


DTC114ES
DTC124ES
DTC144ES
DTC144WS



2SA1013-O
2SA1208-S
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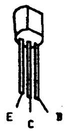

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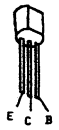

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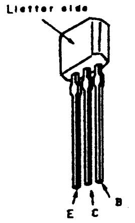
Letter side
E C B

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2SC4582-NP
2SC4632-CB7
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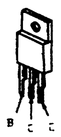

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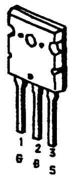

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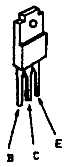

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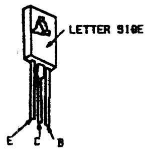
2SC2688-LK
2SC3271-P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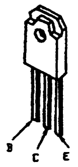

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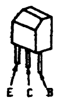

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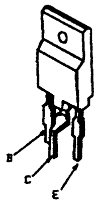

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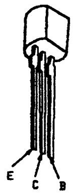

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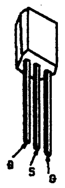

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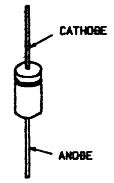
RD27F-B2
RD33F-B1
SB140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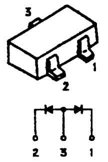

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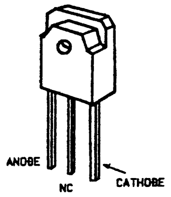
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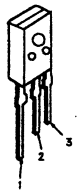

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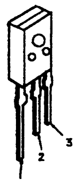

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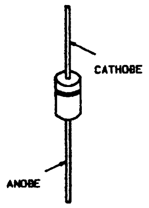
ERC81-004
RU-1C
RU-3AM
S3V10SB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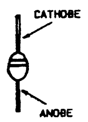
V09G
V30N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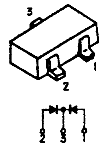
MA152WK



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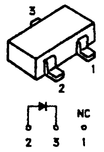
MA3062
MA3091
MA3110
RD3.6M-B2
RD5.6M-B2
RD5.6M-B3
RD9.1M-B2



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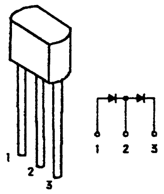
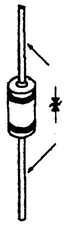


RD9.1E-W



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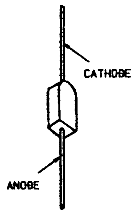
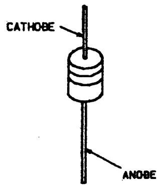

CATHODE
ANODE

MTZJ-4.3B
RB-100A
RD11ES-B2
RD13ES-B2
RD18ES-B2
RD2.0ES-B1
RD22ES-B2
RD24ES-B3
RD3.9ES-B1
RD39ES-B2
RD4.7ES-B2
RD5.1ES-B1
RD5.1ES-B2
RD5.6ES-B1
RD5.6ES-B2
RD6.8ES-B1
RD6.8ES-B2
RD7.5ES-B1
RD9.1ES-L
1SS119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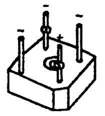

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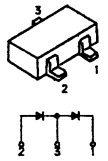

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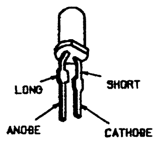

LONG
SHORT
ANODE
CATHODE

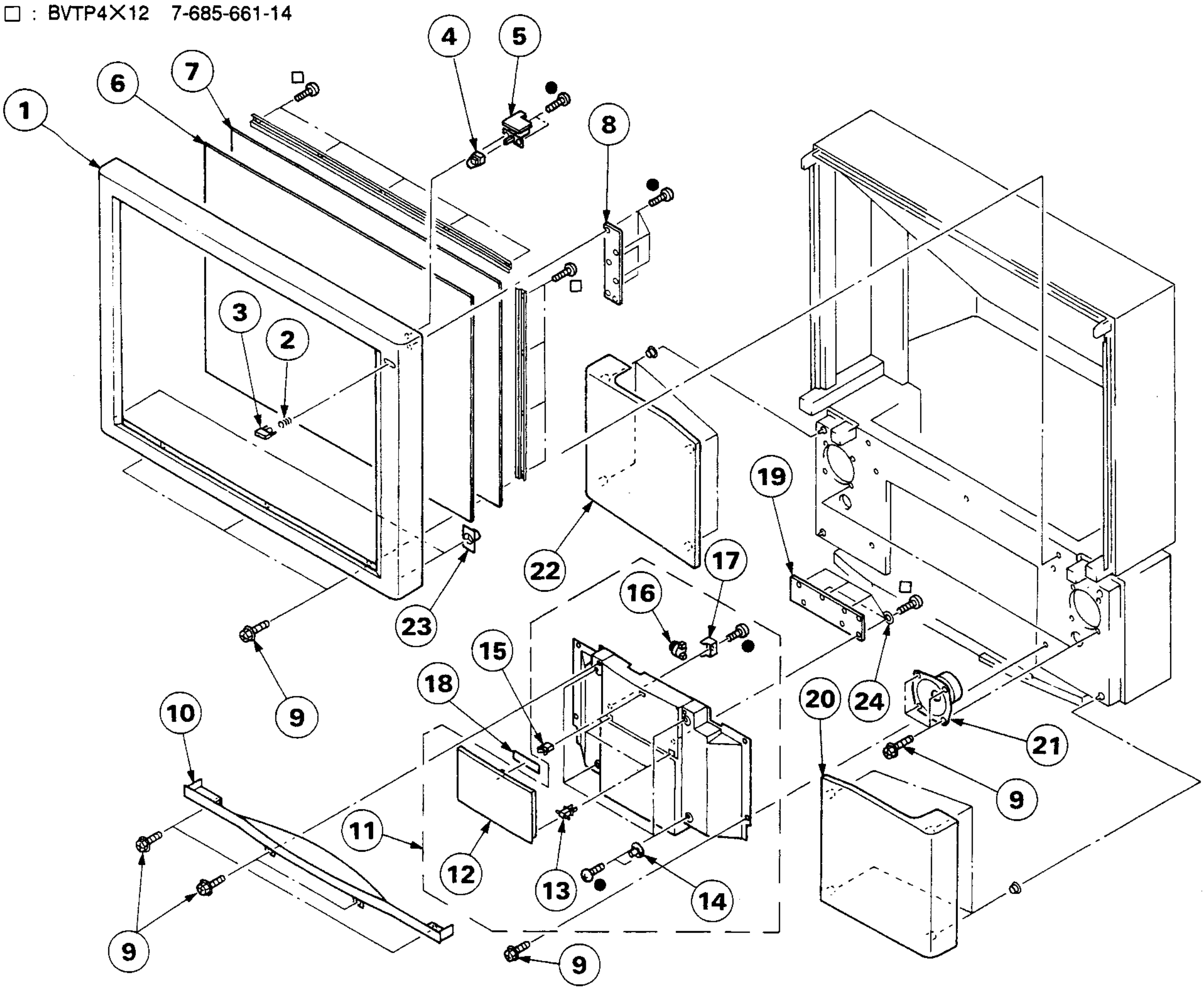
SECTION 6
EXPLODED VIEWS

NOTE:
- Items with no part number and no description are not stocked because they are seldom required for routine service.
- The construction parts of an assembled part are indicated with a collation number in the remark column.
- Items marked " ★ " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

6-1. CONTROL PANEL

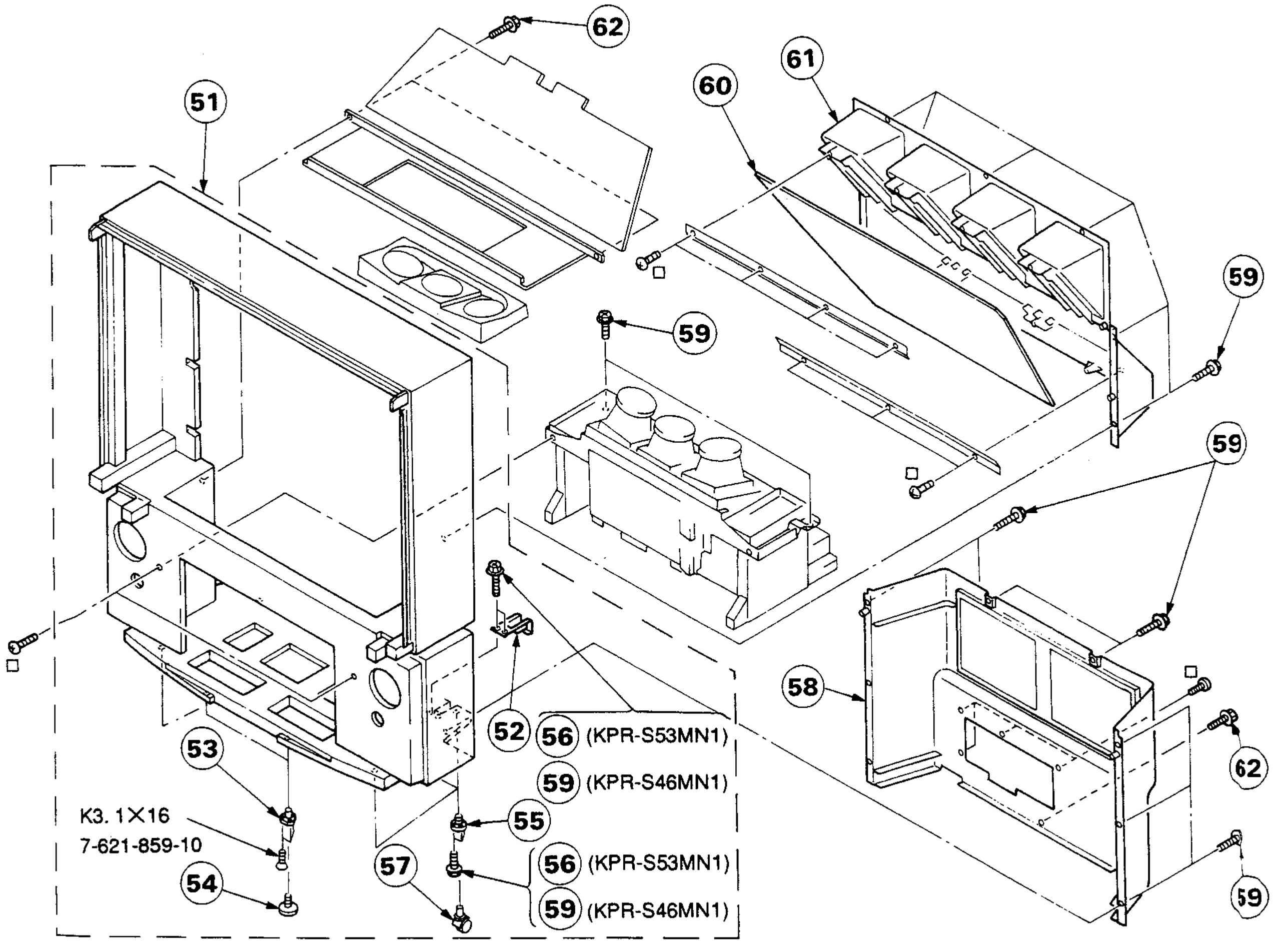
● : BVTP3×12 7-685-648-79
☐ : BVTP4×12 7-685-661-14



REF.NO.	PART NO.	DESCRIPTION	REMARK
1	X-4030-815-1	FRAME ASSY, SCREEN (KPR-S46MN1)	
	X-4030-865-1	FRAME ASSY, SCREEN (KPR-S53MN1)	
2	3-308-717-00	SPRING, COMPRESSION	
3	4-037-635-01	BUTTON, POWER	
4	4-037-636-01	ADAPTOR, BUTTON	
5	*A-1371-870-A	H3 BOARD, COMPLETE	
6	4-037-360-11	PLATE (L), DIFFUSION (KPR-S46MN1)	
	4-036-466-11	PLATE (L), DIFFUSION (KPR-S53MN1)	
7	4-037-359-11	PLATE (F), DIFFUSION (KPR-S46MN1)	
	4-036-469-11	PLATE (F), DIFFUSION (KPR-S53MN1)	
8	*1-645-440-11	H1 BOARD	
9	4-378-522-31	SCREW, TAPPING, HEXAGON HEAD(KPR-S46MN1)	
10	4-036-470-01	ESCUTCHEON, FRONT	
11	X-4030-816-1	PANEL ASSY, CONTROL (KPR-S46MN1)	12~17
	X-4030-866-1	PANEL ASSY, CONTROL (KPR-S53MN1)	12~17
12	4-036-461-21	LID, CONTROL (KPR-S46MN1)	
	4-036-475-11	LID, CONTROL (KPR-S53MN1)	
13	3-703-035-11	SHAFT, LID	
14	4-843-806-00	STRIKE	
15	4-392-036-01	CATCH, PUSH	
16	3-721-204-21	DAMPER (KPR-S46MN1)	
	3-721-204-01	DAMPER (KPR-S53MN1)	
17	4-397-047-01	HOLDER, DAMPER	
18	4-038-630-01	LABEL	
19	*A-1371-871-A	H2 BOARD, COMPLETE	
20	X-4030-569-1	GRILLE (R) ASSY, SPEAKER (KPR-S46MN1)	
	X-4030-552-1	GRILLE (R) ASSY, SPEAKER (KPR-S53MN1)	
21	1-504-141-11	SPEAKER (13CM)	
22	X-4030-570-1	GRILLE (L) ASSY, SPEAKER (KPR-S46MN1)	
	X-4030-553-1	GRILLE (L) ASSY, SPEAKER (KPR-S53MN1)	
23	1-544-580-21	SPEAKER (2.5CM)	
24	4-866-147-00	WASHER	

6-2. CABINET

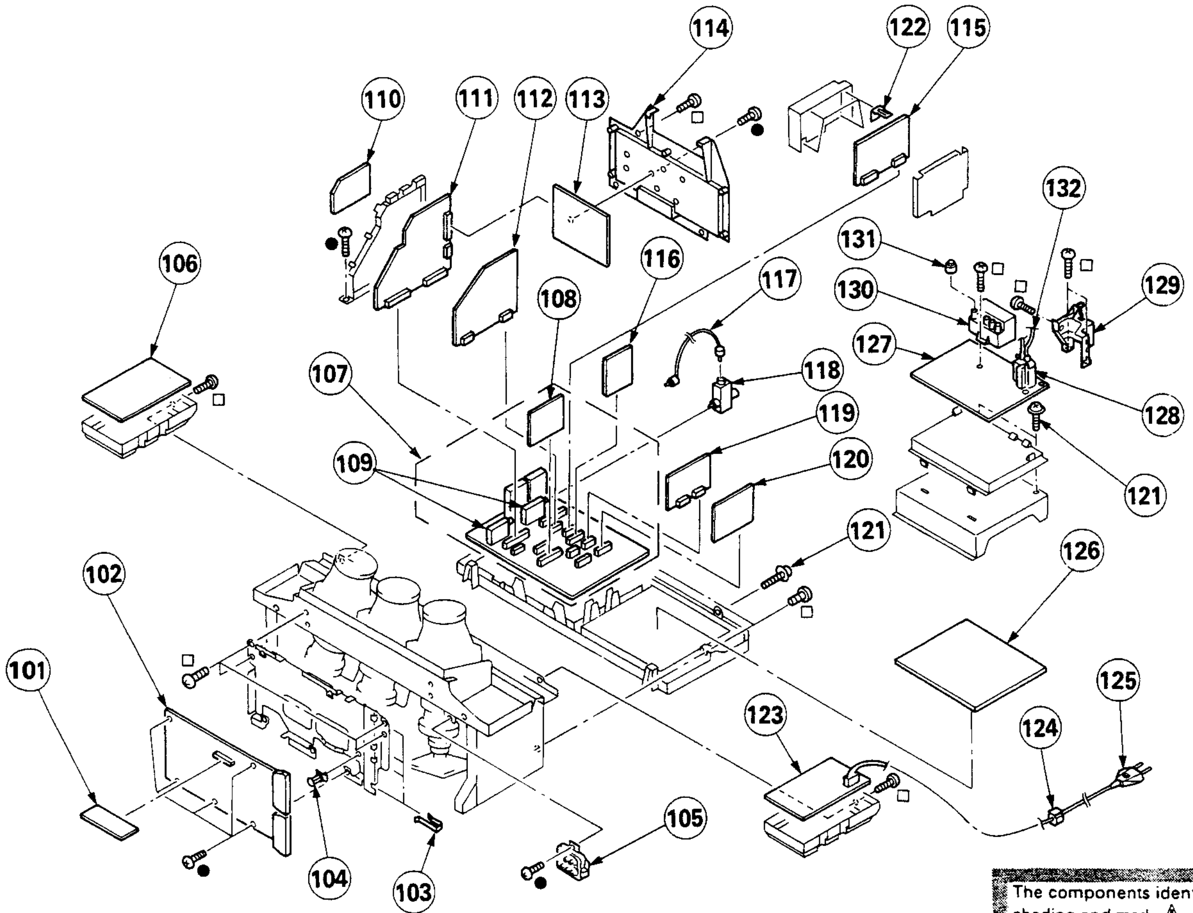
☐ : BVTP4X12 7-685-661-14


62
51
60
61
59
59
59
☐
☐
☐
☐
58
52
56 (KPR-S53MN1)
59 (KPR-S46MN1)
62
53
K3. 1X16
7-621-859-10
55
54
57
56 (KPR-S53MN1)
59 (KPR-S46MN1)
59

REF.NO.	PART NO.	DESCRIPTION	REMARK
51	X-4030-828-1	CABINET ASSY (KPR-S46MN1)	52~55,57,59
	X-4030-864-1	CABINET ASSY (KPR-S53MN1)	52~57
52	4-037-639-01	BRACKET, AC CORD	
53	4-037-473-01	NUT, FITTING	
54	4-037-472-01	LEG, ADJUSTABLE	
55	4-030-850-01	SOCKET, CASTER	
56	4-378-522-01	SCREW, TAPPING, HEXAGON HEAD(KPR-S53MN1)	
57	4-032-343-11	CASTER	
58	X-4030-604-1	COVER ASSY, BACK	
59	4-378-522-31	SCREW, TAPPING, HEXAGON HEAD(KPR-S46MN1)	
60	4-038-671-01	MIRROR (46), REFLECTION (KPR-S46MN1)	
	4-038-950-01	MIRROR (53), REFLECTION (KPR-S53MN1)	
61	4-036-462-01	COVER (46"), MIRROR (KPR-S46MN1)	
	4-036-474-01	COVER (53"), MIRROR (KPR-S53MN1)	
62	4-378-522-41	SCREW, TAPPING, HEXAGON HEAD	

6-3. CHASSIS

● : BVTP3×12 7-685-648-79
□ : BVTP3×12 7-685-661-14

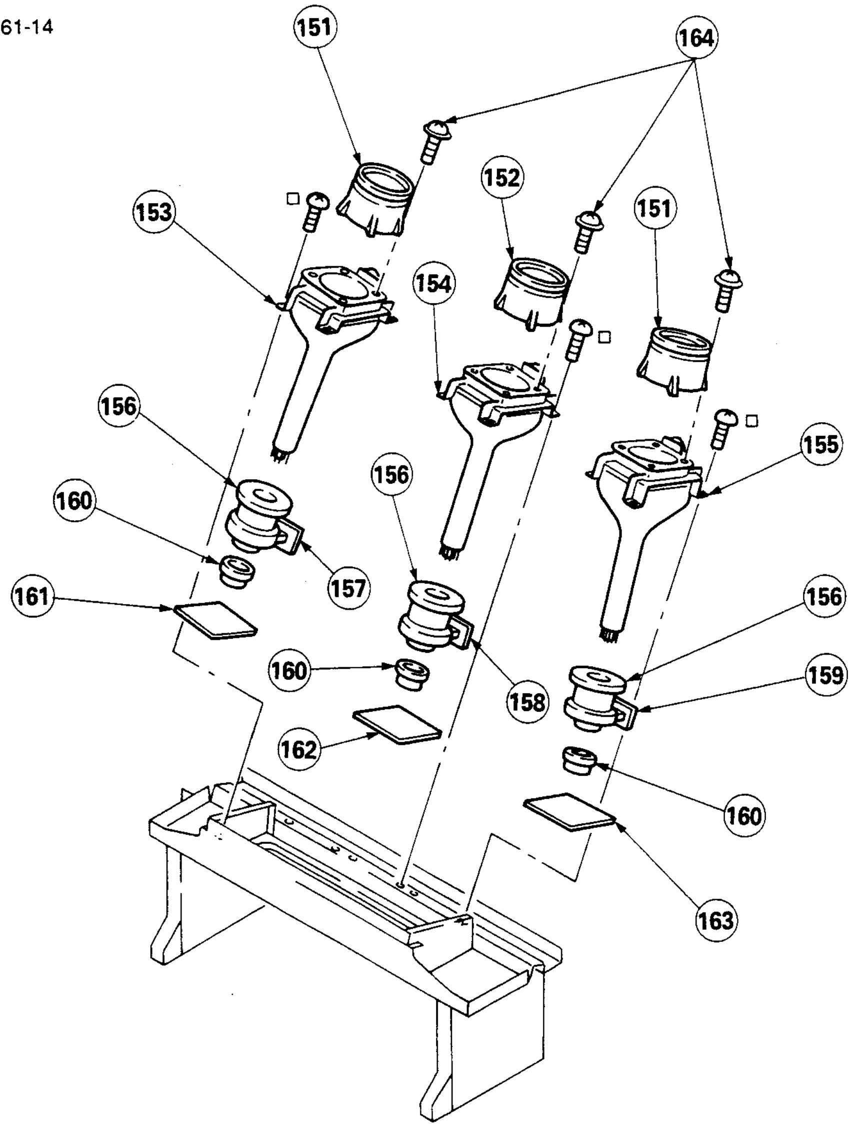


The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

REF.NO.	PART NO.	DESCRIPTION	REMARK
101	*1-644-278-11	DS BOARD	
102	*A-1341-632-A	D BOARD, COMPLETE	
103	*4-393-401-01	SPRING	
104	*3-670-570-21	SPACER, SUPPORT	
105	⚠.1-241-744-11	RESISTOR ASSY (HIGH-VOLTAGE)	
106	*A-1346-097-A	DO BOARD, COMPLETE (KPR-S46MN1)	
	*A-1346-096-A	DO BOARD, COMPLETE (KPR-S53MN1)	
107	*A-1297-023-A	A BOARD, COMPLETE	108
108	*A-1306-423-A	M BOARD, COMPLETE	
109	⚠.1-693-123-11	TUNER, ET (BTP-RG401)	
110	*A-1135-719-A	B1 BOARD, COMPLETE	
111	*A-1135-749-A	B BOARD, COMPLETE	
112	*A-1297-031-A	A1 BOARD, COMPLETE	
113	*A-1388-153-A	J BOARD, COMPLETE	
114	X-4030-817-1	PANEL ASSY, CONNECTOR	
115	*A-1135-717-A	BP BOARD, COMPLETE	
116	*A-1390-304-A	S BOARD, COMPLETE	
117	*1-555-110-00	CABLE, PIN	
118	⚠.1-251-027-11	DISTRIBUTOR	
119	*A-1347-062-A	V BOARD, COMPLETE	
120	*A-1292-261-A	AO BOARD, COMPLETE	
121	3-701-810-91	SCREW, TERMINAL	
122	4-037-555-01	HOOK	
123	*A-1245-546-A	F BOARD, COMPLETE	
124	⚠.4-316-102-04	HOLDER, AC CORD	
125	⚠.1-574-062-12	CORD, POWER (WITH CONNECTOR)	
126	*A-1316-144-A	G BOARD, COMPLETE	
127	*A-1394-410-A	N BOARD, COMPLETE	
128	⚠.1-453-121-11	TRANSFORMER ASSY, FLYBACK (NX-2630B4)	
129	4-034-482-01	COVER, FBT	
130	⚠.1-453-108-11	DC BLOCK, HIGH-VOLTAGE	
131	4-373-137-01	CAP (Z), RUBBER	
132	1-574-590-31	LEAD ASSY, HIGH-VOLTAGE	

6-4. PICTURE TUBE

☐ : BVTP4X12 7-685-661-14



The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

REF.NO.	PART NO.	DESCRIPTION	REMARK
151	4-034-057-01	LENS (LINNIT)	
152	4-034-057-11	LENS (LINNIT)	
153	⚠.8-736-633-05	PICTURE TUBE(SD-249 (R))	
154	⚠.8-736-631-05	PICTURE TUBE(SD-249 (G))	
155	⚠.8-736-632-05	PICTURE TUBE(SD-249 (B))	
156	⚠.1-451-396-11	DEFLECTION YOKE (Y936PA)	
157	*A-1390-334-A	ZR BOARD, COMPLETE	
158	*A-1390-337-A	ZG BOARD, COMPLETE	
159	*A-1390-342-A	ZB BOARD, COMPLETE	
160	⚠.1-452-443-13	NECK ASSY, PICTURE TUBE (NA367)	
161	*A-1331-206-A	CR BOARD, COMPLETE	
162	*A-1331-254-A	CG BOARD, COMPLETE	
163	*A-1331-208-A	CB BOARD, COMPLETE	
164	3-701-810-91	SCREW, TERMINAL	

SECTION 7

ELECTRICAL PARTS LIST

BP

NOTE:

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.

RESISTORS
- All resistors are in ohms
- F : nonflammable

When indicating parts by reference number, please include the board name.

CAPACITORS
- MF : μF, PF : μμF

COILS
- MMH : mH, UH : μH

- The components identified by ☒ in this manual have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation. Should replacement be required, replace only with the value originally used.
- There are some cases the reference number on one board overlaps on the other board. Therefore, when ordering parts by the reference number, please include the board name.

REF.NO.	PART NO.	DESCRIPTION			REMARK
	*A-1135-717-A	BP BOARD, COMPLETE ******************			
	4-038-322-01	CUSHION			
		<FILTER>			
BF3301	1-236-063-11	MODULE, B.P.F			
		<CAPACITOR>			
C3301	1-124-477-11	ELECT	47MF	20%	16V
C3302	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C3303	1-124-477-11	ELECT	47MF	20%	16V
C3304	1-163-135-00	CERAMIC CHIP	560PF	5%	50V
C3305	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C3306	1-124-903-11	ELECT	1MF	20%	50V
C3307	1-163-157-00	FILM	0.022MF	5%	50V
C3308	1-163-033-00	CERAMIC CHIP	0.022MF		50V
C3309	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C3310	1-136-175-00	FILM	0.68MF	5%	50V
C3311	1-126-103-11	ELECT	470MF	20%	16V
C3312	1-136-161-00	FILM	0.047MF	5%	50V
C3313	1-163-111-00	CERAMIC CHIP	56PF	5%	50V
C3314	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C3315	1-136-171-00	FILM	0.33MF	5%	50V
C3316	1-163-115-00	CERAMIC CHIP	82PF	5%	50V
C3317	1-163-237-11	CERAMIC CHIP	27PF	5%	50V
C3318	1-163-105-00	CERAMIC CHIP	33PF	5%	50V
C3319	1-163-119-00	CERAMIC CHIP	120PF	5%	50V
C3320	1-216-037-00	METAL GLAZE	330	5%	1/10W
C3321	1-136-165-00	FILM	0.1MF	5%	50V
C3322	1-216-037-00	METAL GLAZE	330	5%	1/10W
C3323	1-163-237-11	CERAMIC CHIP	27PF	5%	50V
C3324	1-163-157-00	FILM	0.022MF	5%	50V
C3325	1-136-165-00	FILM	0.1MF	5%	50V
C3326	1-163-157-00	FILM	0.022MF	5%	50V
C3327	1-136-165-00	FILM	0.1MF	5%	50V
C3328	1-163-125-00	CERAMIC CHIP	220PF	5%	50V
C3329	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C3330	1-163-123-00	CERAMIC CHIP	180PF	5%	50V
C3331	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C3332	1-136-165-00	FILM	0.1MF	5%	50V
C3333	1-124-910-11	ELECT	47MF	20%	50V
C3334	1-163-121-00	CERAMIC CHIP	150PF	5%	50V
C3335	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C3336	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C3337	1-124-910-11	ELECT	47MF	20%	50V
C3338	1-136-165-00	FILM	0.1MF	5%	50V
C3339	1-136-165-00	FILM	0.1MF	5%	50V
C3340	1-136-165-00	FILM	0.1MF	5%	50V
C3341	1-130-491-00	MYLAR	0.047MF	5%	50V
C3342	1-106-343-00	FILM	0.001MF	5%	100V
C3343	1-124-034-51	ELECT	33MF	20%	16V
C3344	1-124-903-11	ELECT	1MF	20%	50V
C3345	1-136-169-00	FILM	0.22MF	5%	50V
C3346	1-130-483-00	MYLAR	0.01MF	5%	50V
C3347	1-126-101-11	ELECT	100MF	20%	16V
C3348	1-136-287-11	FILM	0.0047MF	5%	50V
C3349	1-136-175-00	FILM	0.68MF	5%	50V
C3350	1-130-483-00	MYLAR	0.01MF	5%	50V
C3351	1-130-487-00	MYLAR	0.022MF	5%	50V
C3352	1-124-927-11	ELECT	4.7MF	20%	50V
C3353	1-163-809-11	CERAMIC CHIP	0.047MF	10%	25V
C3354	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V
C3356	1-124-126-00	ELECT	47MF	20%	10V
C3357	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C3358	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C3359	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C3360	1-164-005-11	CERAMIC CHIP	0.47MF		25V
C3361	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C3362	1-124-443-00	ELECT	100MF	20%	6.3V
C3363	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C3364	1-124-477-11	ELECT	47MF	20%	16V
C3365	1-124-791-11	ELECT	1MF	20%	50V
C3366	1-124-477-11	ELECT	47MF	20%	16V
C3367	1-124-791-11	ELECT	1MF	20%	50V
C3368	1-124-903-11	ELECT	1MF	20%	50V
C3369	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
C3370	1-124-443-00	ELECT	100MF	20%	6.3V
C3371	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C3372	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
C3373	1-124-477-11	ELECT	47MF	20%	16V
C3375	1-124-443-00	ELECT	100MF	20%	6.3V
C3376	1-124-443-00	ELECT	100MF	20%	6.3V
C3377	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V
C3378	1-163-123-00	CERAMIC CHIP	180PF	5%	50V
C3379	1-164-222-11	CERAMIC CHIP	0.22MF		25V
C3380	1-124-477-11	ELECT	47MF	20%	16V
C3381	1-124-477-11	ELECT	47MF	20%	16V
C3382	1-124-477-11	ELECT	47MF	20%	16V
C3383	1-124-477-11	ELECT	47MF	20%	16V
C3384	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C3389	1-126-320-11	ELECT	10MF	20%	16V
C3391	1-126-320-11	ELECT	10MF	20%	16V
C3392	1-164-161-11	CERAMIC CHIP	0.0022MF	10%	50V
C3393	1-163-005-11	CERAMIC CHIP	470PF	10%	50V
C3394	1-163-095-00	CERAMIC CHIP	12PF	5%	50V
C3395	1-124-477-11	ELECT	47MF	20%	16V
C3396	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C3397	1-163-109-00	CERAMIC CHIP	47PF	5%	50V
C3399	1-124-477-11	ELECT	47MF	20%	16V

BP

REF.NO.	PART NO.	DESCRIPTION			REMARK
C3400	1-126-157-11	ELECT	10MF	20%	16V
C3401	1-124-907-11	ELECT	10MF	20%	50V
C3402	1-163-119-00	CERAMIC CHIP	120PF	5%	50V
C3403	1-164-161-11	CERAMIC CHIP	0.0022MF	10%	50V
		<CONNECTOR>			
CN3301	*1-691-632-11	CONNECTOR, BOARD TO BOARD 15P			
CN3302	*1-573-979-11	CONNECTOR, BOARD TO BOARD 11P			
		<TRIMMER>			
CT3301	1-141-245-00	TRIMMER, CERAMIC			
CT3304	1-141-245-00	TRIMMER, CERAMIC			
		<DIODE>			
D3301	8-719-800-76	DIODE 1SS226			
D3302	8-719-800-76	DIODE 1SS226			
D3303	8-719-800-76	DIODE 1SS226			
D3304	8-719-800-76	DIODE 1SS226			
D3305	8-719-800-76	DIODE 1SS226			
D3306	8-719-105-91	DIODE RD5.6M-B2			
D3307	8-719-105-91	DIODE RD5.6M-B2			
D3308	8-719-800-76	DIODE 1SS226			
D3309	8-719-800-76	DIODE 1SS226			
D3310	8-719-800-76	DIODE 1SS226			
D3311	8-719-800-76	DIODE 1SS226			
D3312	8-719-800-76	DIODE 1SS226			
D3313	8-719-982-11	DIODE MTZJ-4.3B			
		<DELAY LINE>			
DL3301	1-415-914-11	DELAY LINE			
DL3302	1-415-914-11	DELAY LINE			
		<IC>			
IC3301	8-752-058-68	IC CXA1315M			
IC3302	8-759-521-22	IC TDA4650/V4			
IC3303	8-759-505-39	IC TDA4660V2			
IC3304	8-759-009-46	IC MC14528BF			
IC3306	8-759-513-48	IC TDA2595/V9			
IC3307	8-759-055-51	IC SDA9087XGEG			
IC3308	8-759-055-52	IC SDA9089XGEG			
IC3309	8-759-046-27	IC SDA9086-3			
IC3310	8-759-112-06	IC UPC78N05H			
IC3311	8-759-112-06	IC UPC78N05H			
IC3312	8-759-009-06	IC MC14052BF			
IC3313	8-759-009-10	IC MC14069UBF			
		<COIL>			
L3301	1-408-424-00	INDUCTOR	180UH		
L3302	1-408-424-00	INDUCTOR	180UH		
L3303	1-404-554-11	COIL			
L3304	1-408-421-00	INDUCTOR	100UH		
L3305	1-408-421-00	INDUCTOR	100UH		
L3306	1-410-470-11	INDUCTOR	10UH		
L3307	1-410-470-11	INDUCTOR	10UH		
L3308	1-410-472-41	INDUCTOR	15UH		
L3309	1-410-472-41	INDUCTOR	15UH		
L3310	1-410-472-41	INDUCTOR	15UH		
L3311	1-410-466-41	INDUCTOR	4.7UH		
L3312	1-410-470-11	INDUCTOR	10UH		
L3313	1-410-645-31	INDUCTOR	100UH		
L3314	1-410-645-31	INDUCTOR	100UH		
		<TRANSISTOR>			
Q3301	8-729-901-04	TRANSISTOR DTA114EK			
Q3302	8-729-901-04	TRANSISTOR DTA114EK			
Q3303	8-729-901-04	TRANSISTOR DTA114EK			
Q3304	8-729-901-04	TRANSISTOR DTA114EK			
Q3305	8-729-230-49	TRANSISTOR 2SC2712-YG			
Q3309	8-729-230-46	TRANSISTOR 2SA1162-YG			
Q3310	8-729-230-49	TRANSISTOR 2SC2712-YG			
Q3311	8-729-230-49	TRANSISTOR 2SC2712-YG			
Q3312	8-729-901-01	TRANSISTOR DTC144EK			
Q3314	8-729-901-01	TRANSISTOR DTC144EK			
Q3315	8-729-230-49	TRANSISTOR 2SC2712-YG			
Q3316	8-729-230-49	TRANSISTOR 2SC2712-YG			
Q3317	8-729-230-46	TRANSISTOR 2SA1162-YG			
Q3318	8-729-230-49	TRANSISTOR 2SC2712-YG			
Q3319	8-729-230-49	TRANSISTOR 2SC2712-YG			
Q3320	8-729-230-49	TRANSISTOR 2SC2712-YG			
Q3321	8-729-230-46	TRANSISTOR 2SA1162-YG			
Q3322	8-729-901-01	TRANSISTOR DTC144EK			
Q3323	8-729-230-49	TRANSISTOR 2SC2712-YG			
Q3324	8-729-230-46	TRANSISTOR 2SA1162-YG			
Q3325	8-729-230-46	TRANSISTOR 2SA1162-YG			
Q3326	8-729-230-49	TRANSISTOR 2SC2712-YG			
Q3327	8-729-230-46	TRANSISTOR 2SA1162-YG			
Q3328	8-729-230-49	TRANSISTOR 2SC2712-YG			
Q3329	8-729-230-49	TRANSISTOR 2SC2712-YG			
Q3330	8-729-900-53	TRANSISTOR DTC114EK			
Q3331	8-729-900-53	TRANSISTOR DTC114EK			
Q3332	8-729-900-53	TRANSISTOR DTC114EK			
Q3333	8-729-900-53	TRANSISTOR DTC114EK			
Q3334	8-729-900-53	TRANSISTOR DTC114EK			
Q3335	8-729-230-49	TRANSISTOR 2SC2712-YG			
Q3336	8-729-230-49	TRANSISTOR 2SC2712-YG			
Q3337	8-729-230-46	TRANSISTOR 2SA1162-YG			
Q3338	8-729-230-46	TRANSISTOR 2SA1162-YG			
Q3339	8-729-901-01	TRANSISTOR DTC144EK			
		<RESISTOR>			
R3301	1-216-033-00	METAL GLAZE	220	5%	1/10W
R3302	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R3303	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R3304	1-216-033-00	METAL GLAZE	220	5%	1/10W
R3305	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R3306	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W
R3307	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R3308	1-216-047-00	METAL GLAZE	820	5%	1/10W
R3309	1-216-047-00	METAL GLAZE	820	5%	1/10W
R3310	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R3311	1-216-025-00	METAL GLAZE	100	5%	1/10W
R3312	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W
R3313	1-216-047-00	METAL GLAZE	820	5%	1/10W
R3314	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W
R3315	1-216-047-00	METAL GLAZE	820	5%	1/10W
R3316	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W
R3318	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W
R3319	1-216-041-00	METAL GLAZE	470	5%	1/10W
R3320	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W
R3321	1-216-295-00	METAL GLAZE	0	5%	1/10W

REF.NO.	PART NO.	DESCRIPTION				REMARK
R3322	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R3323	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R3324	1-216-039-00	METAL GLAZE	390	5%	1/10W	
R3325	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R3326	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R3327	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R3328	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R3330	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R3331	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R3332	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R3333	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R3334	1-216-184-00	METAL GLAZE	270	5%	1/8W	
R3335	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R3337	1-216-184-00	METAL GLAZE	270	5%	1/8W	
R3338	1-216-001-00	METAL GLAZE	10	5%	1/10W	
R3339	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R3341	1-216-051-00	METAL GLAZE	1.2K	5%	1/10W	
R3342	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R3343	1-216-001-00	METAL GLAZE	10	5%	1/10W	
R3344	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R3345	1-216-121-00	METAL GLAZE	1M	5%	1/10W	
R3346	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R3347	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R3348	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R3349	1-216-677-11	METAL CHIP	12K	0.50%	1/10W	
R3350	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R3351	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R3352	1-216-063-00	METAL GLAZE	3.9K	5%	1/10W	
R3353	1-216-085-00	METAL GLAZE	33K	5%	1/10W	
R3354	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R3355	1-216-075-00	METAL GLAZE	12K	5%	1/10W	
R3358	1-216-099-00	METAL GLAZE	120K	5%	1/10W	
R3359	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R3360	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R3361	1-216-109-00	METAL GLAZE	330K	5%	1/10W	
R3362	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R3363	1-216-047-00	METAL GLAZE	820	5%	1/10W	
R3364	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R3365	1-216-045-00	METAL GLAZE	680	5%	1/10W	
R3366	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R3367	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R3368	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R3369	1-216-079-00	METAL GLAZE	18K	5%	1/10W	
R3370	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R3372	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R3373	1-216-083-00	METAL GLAZE	27K	5%	1/10W	
R3374	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R3375	1-216-045-00	METAL GLAZE	680	5%	1/10W	
R3376	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R3377	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R3378	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R3379	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R3380	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R3382	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R3383	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R3384	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R3385	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R3386	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R3387	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R3388	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R3389	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R3390	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R3391	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R3392	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R3393	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R3394	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R3395	1-216-063-00	METAL GLAZE	3.9K	5%	1/10W	
R3396	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W	
R3397	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R3398	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R3399	1-216-029-00	METAL GLAZE	150	5%	1/10W	
R3400	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R3401	1-216-039-00	METAL GLAZE	390	5%	1/10W	
R3402	1-216-039-00	METAL GLAZE	390	5%	1/10W	
R3404	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R3406	1-216-035-00	METAL GLAZE	270	5%	1/10W	
R3407	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R3408	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R3409	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R3410	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R3411	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R3414	1-216-689-11	METAL GLAZE	39K	5%	1/10W	
R3415	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R3417	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R3418	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R3419	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R3420	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R3421	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R3422	1-249-484-11	CARBON	6.8	5%	1/2W	F
R3423	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R3425	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R3426	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R3427	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R3428	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R3429	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R3430	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R3431	1-216-035-00	METAL GLAZE	270	5%	1/10W	
R3432	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R3434	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R3435	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R3436	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R3437	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R3438	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R3439	1-216-035-00	METAL GLAZE	270	5%	1/10W	
R3443	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R3444	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W	
R3445	1-216-121-00	METAL GLAZE	1M	5%	1/10W	
R3446	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W	
R3447	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R3448	1-216-119-00	METAL GLAZE	820K	5%	1/10W	
R3449	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R3450	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R3451	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R3452	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R3454	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R3455	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R3457	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R3458	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R3459	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R3461	1-216-101-00	METAL GLAZE	150K	5%	1/10W	
R3462	1-216-101-00	METAL GLAZE	150K	5%	1/10W	

<VARIABLE RESISTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
RV3301	1-241-119-11	RES, ADJ, CARBON 1K	
RV3302	1-241-632-11	RES, ADJ, CARBON 47K	

BP **B1**

REF.NO.	PART NO.	DESCRIPTION			REMARK
		<TRANSFORMER>			
T3301	1-404-584-11	COIL			
		<CRYSTAL>			
X3301	1-567-413-11	VIBRATOR, CRYSTAL			
X3304	1-527-789-00	VINRATOR, CRYSTAL			
X3305	1-577-360-11	VIBRATOR, CERAMIC			

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*A-1135-719-A B1 BOARD, COMPLETE
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	4-382-854-11	SCREW (M3X10), P, SW (+)			
		<CAPACITOR>			
C2501	1-126-101-11	ELECT	100MF	20%	16V
C2502	1-124-122-11	ELECT	100MF	20%	50V
C2503	1-124-907-11	ELECT	10MF	20%	50V
C2504	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C2505	1-124-477-11	ELECT	47MF	20%	16V
C2506	1-124-907-11	ELECT	10MF	20%	50V
C2507	1-163-093-00	CERAMIC CHIP	10PF	5%	50V
C2508	1-163-105-00	CERAMIC CHIP	33PF	5%	50V
C2511	1-126-101-11	ELECT	100MF	20%	16V
C2512	1-124-925-11	ELECT	2.2MF	20%	50V
C2513	1-163-017-00	CERAMIC CHIP	0.0047MF	10%	50V
C2514	1-124-902-00	ELECT	0.47MF	20%	50V
C2515	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C2516	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C2517	1-163-809-11	CERAMIC CHIP	0.047MF	10%	25V
C2518	1-163-809-11	CERAMIC CHIP	0.047MF	10%	25V
C2519	1-126-101-11	ELECT	100MF	20%	16V
C2520	1-126-101-11	ELECT	100MF	20%	16V
C2521	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C2522	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C2523	1-163-809-11	CERAMIC CHIP	0.047MF	10%	25V
C2524	1-124-443-00	ELECT	100MF	20%	10V
C2525	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V
C2526	1-126-101-11	ELECT	100MF	20%	16V
C2527	1-124-907-11	ELECT	10MF	20%	50V
C2528	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V
C2529	1-124-472-11	ELECT	470MF	20%	10V
C2530	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C2531	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C2532	1-124-907-11	ELECT	10MF	20%	50V
C2533	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C2534	1-124-907-11	ELECT	10MF	20%	50V
C2535	1-124-907-11	ELECT	10MF	20%	50V
C2536	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C2537	1-124-443-00	ELECT	100MF	20%	10V
C2538	1-124-907-11	ELECT	10MF	20%	50V
C2539	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C2540	1-163-809-11	CERAMIC CHIP	0.047MF	10%	25V
C2541	1-163-137-00	CERAMIC CHIP	680PF	5%	50V
C2542	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C2543	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C2544	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C2545	1-124-472-11	ELECT	470MF	20%	10V
C2546	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
C2547	1-126-101-11	ELECT	100MF	20%	16V

REF.NO.	PART NO.	DESCRIPTION			REMARK
C2548	1-124-472-11	ELECT	470MF	20%	10V
C2549	1-101-880-00	CERAMIC	47PF	5%	50V
C2550	1-136-165-00	FILM	0.1MF	5%	50V
C2551	1-126-101-11	ELECT	100MF	20%	16V
C2552	1-164-161-11	CERAMIC CHIP	0.0022MF	10%	50V
		<CONNECTOR>			
CN2501	*1-564-516-11	PLUG, CONNECTOR 13P			
		<TRIMMER>			
CV2501	1-141-245-00	TRIMMER, CERAMIC			
CV2502	1-141-245-00	TRIMMER, CERAMIC			
		<DIODE>			
D2501	8-719-800-76	DIODE 1SS226			
D2503	8-719-800-76	DIODE 1SS226			
		<FILTER>			
FL2501	1-236-164-11	ENCAPSULATED COMPONENT			
FL2502	1-236-164-11	ENCAPSULATED COMPONENT			
FL2503	1-236-620-11	FILTER, LOW PASS			
FL2504	1-236-620-11	FILTER, LOW PASS			
FL2505	1-236-620-11	FILTER, LOW PASS			
		<IC>			
IC2501	8-752-062-80	IC CXA1686M			
IC2502	8-741-692-01	IC SBX1692-01			
IC2503	8-759-802-18	IC L780S05			
		<COIL>			
L2501	1-408-423-00	INDUCTOR	150UH		
L2502	1-410-466-41	INDUCTOR	4.7UH		
L2503	1-410-466-41	INDUCTOR	4.7UH		
L2505	1-410-466-41	INDUCTOR	4.7UH		
		<TRANSISTOR>			
Q2501	8-729-230-49	TRANSISTOR 2SC2712-YG			
Q2502	8-729-230-49	TRANSISTOR 2SC2712-YG			
Q2503	8-729-230-49	TRANSISTOR 2SC2712-YG			
Q2504	8-729-230-49	TRANSISTOR 2SC2712-YG			
Q2505	8-729-230-49	TRANSISTOR 2SC2712-YG			
Q2506	8-729-230-46	TRANSISTOR 2SA1162-YG			
Q2507	8-729-230-46	TRANSISTOR 2SA1162-YG			
Q2510	8-729-901-00	TRANSISTOR DTC124EK			
Q2511	8-729-230-46	TRANSISTOR 2SA1162-YG			
Q2512	8-729-230-49	TRANSISTOR 2SC2712-YG			
Q2513	8-729-230-49	TRANSISTOR 2SC2712-YG			
Q2514	8-729-230-46	TRANSISTOR 2SA1162-YG			
Q2515	8-729-230-46	TRANSISTOR 2SA1162-YG			
Q2516	8-729-230-49	TRANSISTOR 2SC2712-YG			
Q2517	8-729-901-01	TRANSISTOR DTC144EK			
Q2518	8-729-230-49	TRANSISTOR 2SC2712-YG			
Q2519	8-729-230-49	TRANSISTOR 2SC2712-YG			
Q2520	8-729-230-49	TRANSISTOR 2SC2712-YG			
		<RESISTOR>			
R2501	1-216-037-00	METAL GLAZE	330	5%	1/10W

REF.NO.	PART NO.	DESCRIPTION				REMARK
R2502	1-216-035-00	METAL GLAZE	270	5%	1/10W	
R2503	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R2504	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R2505	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R2506	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R2507	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R2508	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R2509	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W	
R2510	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R2511	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R2512	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R2513	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R2514	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R2515	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R2516	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R2517	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R2518	1-216-085-00	METAL GLAZE	33K	5%	1/10W	
R2519	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R2520	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W	
R2521	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R2522	1-216-039-00	METAL GLAZE	390	5%	1/10W	
R2523	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R2524	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R2525	1-216-071-00	METAL GLAZE	8.2K	5%	1/10W	
R2526	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R2527	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W	
R2530	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R2531	1-216-051-00	METAL GLAZE	1.2K	5%	1/10W	
R2533	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R2534	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R2535	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R2536	1-216-039-00	METAL GLAZE	390	5%	1/10W	
R2537	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R2538	1-216-039-00	METAL GLAZE	390	5%	1/10W	
R2539	1-216-079-00	METAL GLAZE	18K	5%	1/10W	
R2540	1-216-079-00	METAL GLAZE	18K	5%	1/10W	
R2541	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R2542	1-216-075-00	METAL GLAZE	12K	5%	1/10W	
R2543	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R2544	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R2545	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R2546	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R2547	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R2548	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R2549	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R2550	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R2551	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R2552	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R2553	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W	
R2554	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R2555	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R2556	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W	
R2557	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R2558	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R2559	1-216-075-00	METAL GLAZE	12K	5%	1/10W	
R2560	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R2561	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R2562	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R2564	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R2565	1-216-295-00	METAL GLAZE	0	5%	1/10W	

<CRYSTAL>

REF.NO.	PART NO.	DESCRIPTION	REMARK
X2501	1-527-722-00	OSCILLATOR, CRYSTAL	
X2502	1-579-057-11	VIBRATOR, CRYSTAL	
X2503	1-577-611-11	OSCILALTOR, CERAMIC	

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*A-1135-749-A B BOARD, COMPLETE
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1-402-699-11 DELAY LINE

<CAPACITOR>

REF.NO.	PART NO.	DESCRIPTION				REMARK
C301	1-124-907-11	ELECT	10MF	20%	50V	
C302	1-124-482-11	ELECT	33MF	20%	25V	
C303	1-163-117-00	CERAMIC CHIP	100PF	5%	50V	
C304	1-163-117-00	CERAMIC CHIP	100PF	5%	50V	
C305	1-124-478-11	ELECT	100MF	20%	25V	
C306	1-124-477-11	ELECT	47MF	20%	16V	
C307	1-124-903-11	ELECT	1MF	20%	50V	
C308	1-124-903-11	ELECT	1MF	20%	50V	
C309	1-126-233-11	ELECT	22MF	20%	25V	
C310	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V	
C311	1-124-907-11	ELECT	10MF	20%	50V	
C312	1-124-034-51	ELECT	33MF	20%	16V	
C313	1-124-478-11	ELECT	100MF	20%	25V	
C314	1-126-233-11	ELECT	22MF	20%	25V	
C315	1-124-907-11	ELECT	10MF	20%	50V	
C316	1-126-233-11	ELECT	22MF	20%	25V	
C317	1-124-477-11	ELECT	47MF	20%	16V	
C318	1-124-907-11	ELECT	10MF	20%	50V	
C319	1-124-907-11	ELECT	10MF	20%	50V	
C320	1-124-034-51	ELECT	33MF	20%	16V	
C321	1-124-907-11	ELECT	10MF	20%	50V	
C322	1-124-903-11	ELECT	1MF	20%	50V	
C323	1-124-910-11	ELECT	47MF	20%	50V	
C324	1-124-907-11	ELECT	10MF	20%	50V	
C325	1-126-233-11	ELECT	22MF	20%	25V	
C326	1-126-233-11	ELECT	22MF	20%	25V	
C327	1-126-233-11	ELECT	22MF	20%	25V	
C328	1-124-907-11	ELECT	10MF	20%	50V	
C329	1-124-120-11	ELECT	220MF	20%	16V	
C330	1-163-017-00	CERAMIC CHIP	0.0047MF	10%	50V	
C331	1-126-103-11	ELECT	470MF	20%	16V	
C332	1-163-031-11	CERAMIC CHIP	0.01MF		50V	
C333	1-126-103-11	ELECT	470MF	20%	16V	
C334	1-124-902-00	ELECT	0.47MF	20%	50V	
C335	1-124-902-00	ELECT	0.47MF	20%	50V	
C336	1-123-875-11	ELECT	10MF	20%	50V	
C338	1-123-875-11	ELECT	10MF	20%	50V	
C339	1-124-907-11	ELECT	10MF	20%	50V	
C340	1-126-101-11	ELECT	100MF	20%	16V	
C341	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V	
C342	1-126-157-11	ELECT	10MF	20%	16V	
C343	1-126-101-11	ELECT	100MF	20%	16V	
C344	1-126-320-11	ELECT	10MF	20%	16V	
C346	1-124-902-00	ELECT	0.47MF	20%	50V	
C347	1-124-902-00	ELECT	0.47MF	20%	50V	
C348	1-163-031-11	CERAMIC CHIP	0.01MF		50V	
C350	1-124-903-11	ELECT	1MF	20%	50V	
C351	1-124-902-00	ELECT	0.47MF	20%	50V	
C352	1-163-157-00	FILM	0.022MF	5%	50V	
C353	1-163-033-00	CERAMIC CHIP	0.022MF		50V	
C354	1-163-031-11	CERAMIC CHIP	0.01MF		50V	
C355	1-136-175-00	FILM	0.68MF	5%	50V	
C356	1-126-103-11	ELECT	470MF	20%	16V	

B

REF.NO.	PART NO.	DESCRIPTION			REMARK
C357	1-136-161-00	FILM	0.047MF	5%	50V
C358	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C359	1-136-171-00	FILM	0.33MF	5%	50V
C360	1-124-907-11	ELECT	10MF	20%	50V
C361	1-163-237-11	CERAMIC CHIP	27PF	5%	50V
C362	1-163-119-00	CERAMIC CHIP	120PF	5%	50V
C363	1-216-037-00	METAL GLAZE	330	5%	1/10W
C364	1-136-165-00	FILM	0.1MF	5%	50V
C365	1-124-477-11	ELECT	47MF	20%	16V
C366	1-124-907-11	ELECT	10MF	20%	50V
C367	1-216-037-00	METAL GLAZE	330	5%	1/10W
C368	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C369	1-163-237-11	CERAMIC CHIP	27PF	5%	50V
C370	1-163-157-00	FILM	0.022MF	5%	50V
C371	1-124-907-11	ELECT	10MF	20%	50V
C372	1-136-165-00	FILM	0.1MF	5%	50V
C373	1-163-157-00	FILM	0.022MF	5%	50V
C374	1-136-165-00	FILM	0.1MF	5%	50V
C375	1-163-125-00	CERAMIC CHIP	220PF	5%	50V
C376	1-124-902-00	ELECT	0.47MF	20%	50V
C377	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C378	1-124-477-11	ELECT	47MF	20%	25V
C379	1-163-123-00	CERAMIC CHIP	180PF	5%	50V
C380	1-124-907-11	ELECT	10MF	20%	50V
C381	1-102-129-00	CERAMIC	0.01MF	10%	50V
C382	1-163-121-00	CERAMIC CHIP	150PF	5%	50V
C383	1-124-790-11	ELECT	0.47MF	20%	100V
C384	1-124-902-00	ELECT	0.47MF	20%	50V
C385	1-124-902-00	ELECT	0.47MF	20%	50V
C386	1-136-165-00	FILM	0.1MF	5%	50V
C387	1-124-902-00	ELECT	0.47MF	20%	50V
C388	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C389	1-136-165-00	FILM	0.1MF	5%	50V
C390	1-124-910-11	ELECT	47MF	20%	50V
C391	1-124-902-00	ELECT	0.47MF	20%	50V
C392	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C393	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C394	1-163-025-11	CERAMIC CHIP	0.001MF		50V
C395	1-136-153-00	FILM	0.01MF	5%	50V
C396	1-124-902-00	ELECT	0.47MF	20%	50V
C397	1-136-165-00	FILM	0.1MF	5%	50V
C398	1-163-025-11	CERAMIC CHIP	0.001MF		50V
C399	1-136-165-00	FILM	0.1MF	5%	50V
C400	1-124-034-51	ELECT	33MF	20%	16V
C401	1-124-902-00	ELECT	0.47MF	20%	50V
C402	1-124-556-11	ELECT	2200MF	20%	16V
C403	1-124-910-11	ELECT	47MF	20%	50V
C404	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C405	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C406	1-136-165-00	FILM	0.1MF	5%	50V
C407	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C408	1-126-101-11	ELECT	100MF	20%	16V
C409	1-136-165-00	FILM	0.1MF	5%	50V
C410	1-136-169-00	FILM	0.22MF	5%	50V
C411	1-124-903-11	ELECT	1MF	20%	50V
C412	1-136-153-00	FILM	0.01MF	5%	50V
C413	1-126-101-11	ELECT	100MF	20%	16V
C414	1-130-479-00	MYLAR	0.0047MF	5%	50V
C415	1-136-175-00	FILM	0.68MF	5%	50V
C416	1-136-153-00	FILM	0.01MF	5%	50V
C417	1-163-157-00	FILM	0.022MF	5%	50V
C418	1-124-927-11	ELECT	4.7MF	20%	50V
C419	1-163-077-00	CERAMIC CHIP	0.1MF	10%	25V
C422	1-124-902-00	ELECT	0.47MF	20%	50V
C423	1-124-902-00	ELECT	0.47MF	20%	50V
C424	1-124-463-00	ELECT	0.1MF	20%	50V
C425	1-126-530-11	ELECT	22MF	20%	50V
C426	1-126-101-11	ELECT	100MF	20%	16V
C427	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C428	1-136-165-00	FILM	0.1MF	5%	50V
C429	1-126-101-11	ELECT	100MF	20%	16V
C430	1-126-101-11	ELECT	100MF	20%	16V
C434	1-101-361-00	CERAMIC	150PF	5%	50V
C438	1-124-477-11	ELECT	47MF	20%	16V
C439	1-126-101-11	ELECT	100MF	20%	16V
C440	1-124-903-11	ELECT	1MF	20%	50V
C441	1-124-907-11	ELECT	10MF	20%	50V
C442	1-124-927-11	ELECT	4.7MF	20%	50V
C443	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
C444	1-124-902-00	ELECT	0.47MF	20%	50V
C445	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C446	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V
C447	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V
C450	1-124-902-00	ELECT	0.47MF	20%	50V
C452	1-102-959-00	CERAMIC	22PF	5%	50V

<CONNECTOR>

REF.NO.	PART NO.	DESCRIPTION
CN301	*1-573-962-11	CONNECTOR (MALE) 50P
CN302	*1-564-509-11	PLUG, CONNECTOR 6P
CN303	*1-573-962-11	CONNECTOR (MALE) 50P
CN305	*1-564-516-11	PLUG, CONNECTOR 13P
CN306	*1-564-513-11	PLUG, CONNECTOR 10P
CN307	*1-564-514-11	PLUG, CONNECTOR 11P
CN308	*1-565-930-11	CONNECTOR (RECEPTACLE) 30P
CN309	*1-566-367-11	CONNECTOR, HINGE (RECEPTACLE)

<TRIMMER>

REF.NO.	PART NO.	DESCRIPTION
CT303	1-141-245-00	TRIMMER, CERAMIC
CT304	1-141-245-00	TRIMMER, CERAMIC

<DIODE>

REF.NO.	PART NO.	DESCRIPTION
D301	8-719-400-75	DIODE MA3091
D302	8-719-400-75	DIODE MA3091
D303	8-719-400-75	DIODE MA3091
D304	8-719-400-75	DIODE MA3091
D305	8-719-400-75	DIODE MA3091
D306	8-719-400-51	DIODE MA3062
D307	8-719-400-51	DIODE MA3062
D308	8-719-800-76	DIODE 1SS226
D309	8-719-800-76	DIODE 1SS226
D310	8-719-800-76	DIODE 1SS226
D311	8-719-800-76	DIODE 1SS226
D312	8-719-800-76	DIODE 1SS226
D313	8-719-800-76	DIODE 1SS226
D314	8-719-800-76	DIODE 1SS226
D315	8-719-105-91	DIODE RD5.6M-B2
D317	8-719-400-84	DIODE MA3110
D318	8-719-400-84	DIODE MA3110
D319	8-719-400-84	DIODE MA3110
D320	8-719-400-84	DIODE MA3110
D322	8-719-800-76	DIODE 1SS226
D323	8-719-105-91	DIODE RD5.6M-B2
D324	8-719-800-76	DIODE 1SS226
D328	8-719-800-76	DIODE 1SS226
D329	8-719-800-76	DIODE 1SS226

REF.NO.	PART NO.	DESCRIPTION	REMARK
D330	8-719-800-76	DIODE 1SS226	
D331	8-719-800-76	DIODE 1SS226	
D332	8-719-800-76	DIODE 1SS226	
D333	8-719-800-76	DIODE 1SS226	
D334	8-719-800-76	DIODE 1SS226	
D335	8-719-400-46	DIODE MA3056-L	
D336	8-719-800-76	DIODE 1SS226	
D337	8-719-800-76	DIODE 1SS226	
D338	8-719-800-76	DIODE 1SS226	
D339	8-719-800-76	DIODE 1SS226	
D340	8-719-800-76	DIODE 1SS226	
D341	8-719-800-76	DIODE 1SS226	
D427	8-719-800-76	DIODE 1SS226	
D428	8-719-800-76	DIODE 1SS226	
D429	8-719-800-76	DIODE 1SS226	
D430	8-719-800-76	DIODE 1SS226	
D431	8-719-800-76	DIODE 1SS226	
D432	8-719-800-76	DIODE 1SS226	
D433	8-719-800-76	DIODE 1SS226	
D434	8-719-800-76	DIODE 1SS226	
D435	8-719-800-76	DIODE 1SS226	
D436	8-719-800-76	DIODE 1SS226	
D437	8-719-800-76	DIODE 1SS226	
D439	8-719-800-76	DIODE 1SS226	
D442	8-719-800-76	DIODE 1SS226	
D448	8-719-800-76	DIODE 1SS226	
D450	8-719-800-76	DIODE 1SS226	
D451	8-719-106-44	DIODE RD9.1M-B2	
D452	8-719-106-44	DIODE RD9.1M-B2	
D453	8-719-106-44	DIODE RD9.1M-B2	

<DELAY LINE>

DL301	1-415-914-11	DELAY LINE	

<IC>

IC301	8-752-056-50	IC CXA1545S	
IC302	8-759-008-67	IC MC14066BF	
IC303	8-752-058-68	IC CXA1315M	
IC304	8-759-008-67	IC MC14066BF	
IC305	8-752-012-52	IC CX20125	
IC306	8-759-800-81	IC LA7016	
IC307	8-752-037-15	IC CXA1387S	
IC308	8-759-009-06	IC MC14052BF	
IC309	8-759-011-65	IC MC74HC4053F	
IC310	8-759-009-06	IC MC14052BF	
IC311	8-759-013-86	IC MC74HC4066F	
IC312	8-759-013-86	IC MC74HC4066F	
IC313	8-759-800-81	IC LA7016	
IC314	8-759-802-23	IC L780S12	
	4-382-854-11	SCREW (M3X10), P, SW (+); IC314	
IC315	8-759-521-22	IC TDA4650/V4	
IC316	8-759-505-39	IC TDA4660V2	
IC317	8-759-009-46	IC MC14528BF-T2	
IC318	8-759-517-43	IC TDA4580-V7	
IC319	8-759-909-70	IC CX23025	
IC320	8-759-513-48	IC TDA2595/V9	
IC321	8-759-011-65	IC MC74HC4053F	
IC322	8-759-800-81	IC LA7016	

<COIL>

REF.NO.	PART NO.	DESCRIPTION	REMARK
L301	1-410-473-11	INDUCTOR 18UH	
L302	1-410-473-11	INDUCTOR 18UH	
L303	1-410-667-31	INDUCTOR 22UH	
L304	1-404-554-11	COIL	
L305	1-410-466-41	INDUCTOR 4.7UH	
L306	1-408-421-00	INDUCTOR 100UH	
L307	1-408-421-00	INDUCTOR 100UH	
L308	1-410-466-41	INDUCTOR 4.7UH	
L309	1-410-466-41	INDUCTOR 4.7UH	
L310	1-410-466-41	INDUCTOR 4.7UH	
L311	1-410-466-41	INDUCTOR 4.7UH	
L312	1-408-417-00	INDUCTOR 47UH	

<TRANSISTOR>

Q301	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q302	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q303	8-729-230-46	TRANSISTOR 2SA1162-YG	
Q304	8-729-230-46	TRANSISTOR 2SA1162-YG	
Q305	8-729-230-46	TRANSISTOR 2SA1162-YG	
Q306	8-729-230-46	TRANSISTOR 2SA1162-YG	
Q307	8-729-230-46	TRANSISTOR 2SA1162-YG	
Q308	8-729-230-46	TRANSISTOR 2SA1162-YG	
Q309	8-729-230-46	TRANSISTOR 2SA1162-YG	
Q310	8-729-230-46	TRANSISTOR 2SA1162-YG	
Q311	8-729-230-46	TRANSISTOR 2SA1162-YG	
Q312	8-729-230-46	TRANSISTOR 2SA1162-YG	
Q313	8-729-230-46	TRANSISTOR 2SA1162-YG	
Q314	8-729-230-46	TRANSISTOR 2SA1162-YG	
Q315	8-729-230-46	TRANSISTOR 2SA1162-YG	
Q316	8-729-230-46	TRANSISTOR 2SA1162-YG	
Q317	8-729-230-46	TRANSISTOR 2SA1162-YG	
Q318	8-729-230-46	TRANSISTOR 2SA1162-YG	
Q319	8-729-230-46	TRANSISTOR 2SA1162-YG	
Q320	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q321	8-729-230-46	TRANSISTOR 2SA1162-YG	
Q322	8-729-901-00	TRANSISTOR DTC124EK	
Q323	8-729-901-00	TRANSISTOR DTC124EK	
Q324	8-729-230-46	TRANSISTOR 2SA1162-YG	
Q325	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q326	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q327	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q328	8-729-230-46	TRANSISTOR 2SA1162-YG	
Q329	8-729-230-46	TRANSISTOR 2SA1162-YG	
Q330	8-729-230-46	TRANSISTOR 2SA1162-YG	
Q331	8-729-230-46	TRANSISTOR 2SA1162-YG	
Q332	8-729-230-46	TRANSISTOR 2SA1162-YG	
Q333	8-729-900-89	TRANSISTOR DTC144ES	
Q335	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q336	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q337	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q338	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q339	8-729-900-53	TRANSISTOR DTC114EK	
Q340	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q341	8-729-900-53	TRANSISTOR DTC114EK	
Q342	8-729-900-53	TRANSISTOR DTC114EK	
Q343	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q344	8-729-900-53	TRANSISTOR DTC114EK	
Q345	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q346	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q347	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q348	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q349	3-729-230-49	TRANSISTOR 2SC2712-YG	
Q350	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q351	8-729-230-49	TRANSISTOR 2SC2712-YG	

B

REF.NO.	PART NO.	DESCRIPTION	REMARK
Q354	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q356	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q357	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q358	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q359	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q360	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q361	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q362	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q365	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q366	8-729-230-46	TRANSISTOR 2SA1162-YG	
Q367	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q368	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q369	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q370	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q371	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q372	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q373	8-729-230-46	TRANSISTOR 2SA1162-YG	
Q374	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q375	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q376	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q377	8-729-230-46	TRANSISTOR 2SA1162-YG	
Q378	8-729-230-46	TRANSISTOR 2SA1162-YG	
Q379	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q380	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q381	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q382	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q385	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q386	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q387	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q389	8-729-901-04	TRANSISTOR DTA114EK	
Q390	8-729-901-04	TRANSISTOR DTA114EK	
Q391	8-729-901-04	TRANSISTOR DTA114EK	
Q392	8-729-901-04	TRANSISTOR DTA114EK	
Q393	8-729-900-53	TRANSISTOR DTC114EK	
Q394	8-729-900-53	TRANSISTOR DTC114EK	
Q395	8-729-900-53	TRANSISTOR DTC114EK	
Q396	8-729-230-46	TRANSISTOR 2SA1162-YG	
Q397	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q398	8-729-230-46	TRANSISTOR 2SA1162-YG	
Q399	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q400	8-729-230-46	TRANSISTOR 2SA1162-YG	
Q401	8-729-230-46	TRANSISTOR 2SA1162-YG	
Q402	8-729-230-46	TRANSISTOR 2SA1162-YG	
Q403	8-729-230-46	TRANSISTOR 2SA1162-YG	
Q404	8-729-808-36	TRANSISTOR 2SK669	
Q405	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q406	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q407	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q408	8-729-900-53	TRANSISTOR DTC114EK	
Q409	8-729-901-01	TRANSISTOR DTC144EK	
Q410	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q441	8-729-230-46	TRANSISTOR 2SA1162-YG	
Q442	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q443	8-729-230-49	TRANSISTOR 2SC2712-YG	

<RESISTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
R301	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R302	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R303	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R304	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R305	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R306	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R307	1-216-035-00	METAL GLAZE 270 5% 1/10W	
R308	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R309	1-216-035-00	METAL GLAZE 270 5% 1/10W	
R310	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R311	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R312	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R313	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R314	1-220-269-11	METAL GLAZE 330 5% 1/2W	
R315	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R316	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R317	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R318	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R319	1-220-269-11	METAL GLAZE 330 5% 1/2W	
R320	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R321	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R322	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R323	1-220-269-11	METAL GLAZE 330 5% 1/2W	
R324	1-216-035-00	METAL GLAZE 270 5% 1/10W	
R325	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R326	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R327	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R328	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R329	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R330	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R331	1-216-035-00	METAL GLAZE 270 5% 1/10W	
R332	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R333	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R334	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R335	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R336	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R337	1-220-269-11	METAL GLAZE 330 5% 1/2W	
R338	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R339	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R340	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R341	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R342	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R343	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R344	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R345	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R346	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R347	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R348	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R349	1-216-295-00	METAL GLAZE 0 5% 1/10W	
R350	1-216-041-00	METAL GLAZE 470 5% 1/10W	
R351	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R352	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R353	1-216-051-00	METAL GLAZE 1.2K 5% 1/10W	
R354	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R355	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R356	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R357	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R358	1-216-051-00	METAL GLAZE 1.2K 5% 1/10W	
R359	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R360	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R361	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R362	1-216-041-00	METAL GLAZE 470 5% 1/10W	
R363	1-216-111-00	METAL GLAZE 390K 5% 1/10W	
R364	1-216-041-00	METAL GLAZE 470 5% 1/10W	
R365	1-216-081-00	METAL GLAZE 22K 5% 1/10W	
R366	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R367	1-216-075-00	METAL GLAZE 12K 5% 1/10W	
R368	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R369	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R370	1-216-025-00	METAL GLAZE 100 5% 1/10W	

REF.NO.	PART NO.	DESCRIPTION				REMARK
R371	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R372	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R373	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R374	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R375	1-216-035-00	METAL GLAZE	270	5%	1/10W	
R376	1-216-035-00	METAL GLAZE	270	5%	1/10W	
R377	1-216-035-00	METAL GLAZE	270	5%	1/10W	
R378	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R379	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R380	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R381	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R383	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R384	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R385	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W	
R386	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W	
R387	1-216-091-00	METAL GLAZE	56K	5%	1/10W	
R388	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R389	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R390	1-259-880-11	CARBON	2.2M	5%	1/4W	
R391	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R392	1-216-075-00	METAL GLAZE	12K	5%	1/10W	
R393	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R394	1-216-051-00	METAL GLAZE	1.2K	5%	1/10W	
R395	1-216-039-00	METAL GLAZE	390	5%	1/10W	
R396	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R397	1-216-085-00	METAL GLAZE	33K	5%	1/10W	
R398	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R399	1-216-051-00	METAL GLAZE	1.2K	5%	1/10W	
R400	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R401	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R402	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R403	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R404	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R405	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R406	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R407	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R408	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R409	1-216-021-00	METAL GLAZE	68	5%	1/10W	
R410	1-216-021-00	METAL GLAZE	68	5%	1/10W	
R411	1-216-021-00	METAL GLAZE	68	5%	1/10W	
R412	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R413	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R414	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R415	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R417	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R418	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R419	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R420	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R421	1-216-047-00	METAL GLAZE	820	5%	1/10W	
R422	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R423	1-216-047-00	METAL GLAZE	820	5%	1/10W	
R424	1-216-035-00	METAL GLAZE	270	5%	1/10W	
R425	1-216-047-00	METAL GLAZE	820	5%	1/10W	
R426	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R427	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R428	1-216-051-00	METAL GLAZE	1.2K	5%	1/10W	
R429	1-216-035-00	METAL GLAZE	270	5%	1/10W	
R430	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R431	1-216-047-00	METAL GLAZE	820	5%	1/10W	
R433	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W	
R434	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R435	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R436	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R437	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R438	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R439	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R440	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R441	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R442	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R443	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R444	1-216-051-00	METAL GLAZE	1.2K	5%	1/10W	
R445	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R446	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R447	1-216-079-00	METAL GLAZE	18K	5%	1/10W	
R448	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R449	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R451	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R452	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R453	1-216-039-00	METAL GLAZE	390	5%	1/10W	
R454	1-216-039-00	METAL GLAZE	390	5%	1/10W	
R455	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R456	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R457	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R458	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R459	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R460	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R461	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R462	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R463	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R464	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R465	1-216-109-00	METAL GLAZE	330K	5%	1/10W	
R466	1-216-109-00	METAL GLAZE	330K	5%	1/10W	
R467	1-216-071-00	METAL GLAZE	8.2K	5%	1/10W	
R468	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R469	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R471	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R472	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R473	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R474	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R475	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R476	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R477	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R478	1-216-035-00	METAL GLAZE	270	5%	1/10W	
R479	1-216-035-00	METAL GLAZE	270	5%	1/10W	
R480	1-216-035-00	METAL GLAZE	270	5%	1/10W	
R481	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W	
R483	1-216-001-00	METAL GLAZE	10	5%	1/10W	
R484	1-216-035-00	METAL GLAZE	270	5%	1/10W	
R485	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R486	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R487	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R489	1-216-001-00	METAL GLAZE	10	5%	1/10W	
R491	1-216-677-11	METAL CHIP	12K	0.50%	1/10W	
R492	1-216-677-11	METAL CHIP	12K	0.50%	1/10W	
R494	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R495	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R496	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R497	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R498	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R499	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R500	1-216-063-00	METAL GLAZE	3.9K	5%	1/10W	
R501	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R502	1-216-121-00	METAL GLAZE	1M	5%	1/10W	
R503	1-216-085-00	METAL GLAZE	33K	5%	1/10W	
R504	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R505	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R506	1-216-033-00	METAL GLAZE	220	5%	1/10W	

B

REF.NO.	PART NO.	DESCRIPTION				REMARK
R507	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R508	1-216-075-00	METAL GLAZE	12K	5%	1/10W	
R509	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R510	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R511	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R512	1-216-099-00	METAL GLAZE	120K	5%	1/10W	
R513	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R514	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R515	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R516	1-216-109-00	METAL GLAZE	330K	5%	1/10W	
R517	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R518	1-216-047-00	METAL GLAZE	820	5%	1/10W	
R519	1-216-045-00	METAL GLAZE	680	5%	1/10W	
R520	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R521	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R522	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R523	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R524	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R525	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R526	1-216-079-00	METAL GLAZE	18K	5%	1/10W	
R527	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R528	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R529	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R530	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R531	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R532	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R534	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R535	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W	
R536	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R537	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R538	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R539	1-216-047-00	METAL GLAZE	820	5%	1/10W	
R540	1-216-045-00	METAL GLAZE	680	5%	1/10W	
R541	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R542	1-216-105-00	METAL GLAZE	220K	5%	1/10W	
R543	1-216-105-00	METAL GLAZE	220K	5%	1/10W	
R544	1-216-105-00	METAL GLAZE	220K	5%	1/10W	
R545	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R546	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R547	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R548	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R549	1-216-091-00	METAL GLAZE	56K	5%	1/10W	
R550	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R551	1-216-075-00	METAL GLAZE	12K	5%	1/10W	
R552	1-216-095-00	METAL GLAZE	82K	5%	1/10W	
R553	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R554	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R555	1-216-093-00	METAL GLAZE	68K	5%	1/10W	
R556	1-216-667-11	METAL CHIP	4.7K	0.50%	1/10W	
R557	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R558	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R559	1-216-695-11	METAL CHIP	68K	0.50%	1/10W	
R560	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W	
R561	1-216-619-11	METAL CHIP	47	0.50%	1/10W	
R562	1-216-675-11	METAL CHIP	10K	0.50%	1/10W	
R563	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R564	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R565	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R566	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R567	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R569	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R570	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R572	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R573	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R574	1-216-017-00	METAL GLAZE	47	5%	1/10W	
R575	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R576	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R578	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R579	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R580	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R581	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R588	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R589	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R590	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R591	1-216-047-00	METAL GLAZE	820	5%	1/10W	
R592	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R593	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R594	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R595	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R596	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R597	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W	
R598	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R599	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R600	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R601	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R602	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R603	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R604	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R605	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R606	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R607	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R608	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R609	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R610	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R611	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R612	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R613	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R614	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R615	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R616	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R618	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R619	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R620	1-216-035-00	METAL GLAZE	270	5%	1/10W	
R621	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R622	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W	
R623	1-216-047-00	METAL GLAZE	820	5%	1/10W	
R624	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W	
R625	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R627	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R628	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R629	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R630	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R631	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R632	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R633	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R634	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R635	1-216-085-00	METAL GLAZE	33K	5%	1/10W	
R636	1-216-085-00	METAL GLAZE	33K	5%	1/10W	
R637	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R638	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R639	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R640	1-216-085-00	METAL GLAZE	33K	5%	1/10W	
R641	1-216-063-00	METAL GLAZE	3.9K	5%	1/10W	
R642	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R643	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R644	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R645	1-216-075-00	METAL GLAZE	12K	5%	1/10W	
R646	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R647	1-216-073-00	METAL GLAZE	10K	5%	1/10W	

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

REF.NO.	PART NO.	DESCRIPTION				REMARK
R648	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R649	1-216-085-00	METAL GLAZE	33K	5%	1/10W	
R650	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R651	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R653	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R654	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R655	1-216-035-00	METAL GLAZE	270	5%	1/10W	
R657	1-216-049-00	METAL GLAZE	1K	5%	1/10W	

<VARIABLE RESISTOR>

RV301	1-241-119-11	RES, ADJ, CARBON 1K
RV302	1-241-632-11	RES, ADJ, CARBON 47K

<TRANSFORMER>

T301	1-404-584-11	COIL

<CRYSTAL>

X303	1-527-789-00	VINRATOR, CRYSTAL
X304	1-567-413-11	VIBRATOR, CRYSTAL

<MODULE>

YCM301	1-239-356-11	MODULE, TRAP

****

*A-1245-546-A F BOARD, COMPLETE
****

1-533-189-11	HOLDER, FUSE
4-363-414-00	SPACER, MICA
4-382-854-11	SCREW (M3X10), P, SW (+)

<CAPACITOR>

C1804	1-104-350-11	ELECT	1000MF	20%	250V
C1805	1-104-350-11	ELECT	1000MF	20%	250V
C1806⚠	1-162-578-81	CERAMIC	0.0047MF	20%	400V
C1807⚠	1-162-578-81	CERAMIC	0.0047MF	20%	400V
C1808⚠	1-129-722-51	FILM	0.047MF	10%	630V
C1810⚠	1-130-495-51	MYLAR	0.1MF	5%	50V
C1811⚠	1-124-445-91	ELECT	100MF	20%	16V
C1812⚠	1-126-406-51	ELECT	2.2MF	20%	400V
C1813⚠	1-102-244-91	CERAMIC	220PF	10%	500V
C1814⚠	1-164-497-51	CERAMIC	470PF	20%	400V
C1815⚠	1-164-497-51	CERAMIC	470PF	20%	400V
C1816⚠	1-136-548-13	FILM	0.1MF	20%	250V
C1817⚠	1-136-415-51	FILM	0.33MF	20%	250V
C1818⚠	1-136-415-51	FILM	0.33MF	20%	250V

<CONNECTOR>

CN1829*	1-508-784-00	PIN, CONNECTOR (5MM PITCH) 1P
CN1850*	1-564-506-11	PLUG, CONNECTOR 3P
CN1851*	1-508-765-00	PIN, CONNECTOR (5MM PITCH) 3P
CN1857*	1-508-786-00	PIN, CONNECTOR (5MM PITCH) 2P
CN1858*	1-580-689-11	PIN, CONNECTOR (PC BOARD) 4P
CN1859*	1-580-689-11	PIN, CONNECTOR (PC BOARD) 4P
CN1860*	1-580-689-11	PIN, CONNECTOR (PC BOARD) 4P

REF.NO.	PART NO.	DESCRIPTION	REMARK

<DIODE>

D1801	8-719-505-60	DIODE S5VB60
D1803⚠	8-719-911-19	DIODE 1SS119
D1804⚠	8-719-304-63	DIODE RM11C
D1805⚠	8-719-304-63	DIODE RM11C

<FUSE>

F1801⚠	1-532-325-00	FUSE, TIME-LAG

<IC>

IC1801⚠	8-749-921-67	IC STR80145A

<FILTER>

LF1801⚠	1-424-260-11	FILTER, LINE
LF1802⚠	1-424-260-11	FILTER, LINE

<RESISTOR>

R1801	1-214-921-00	CARBON	220K	5%	1/2W	
R1802	1-214-921-00	CARBON	220K	5%	1/2W	
R1803⚠	1-247-741-91	CARBON	150	5%	1/2W	F
R1804⚠	1-205-790-11	WIREWOUND	5.6	5%	20W	
R1805⚠	1-244-817-91	CARBON	4.7	5%	1/2W	
R1806⚠	1-249-377-51	CARBON	0.47	5%	1/4W	F
R1807⚠	1-247-289-11	CARBON	8.2M	5%	1W	
R1808⚠	1-244-945-91	CARBON	1M	5%	1/2W	

<RELAY>

RY1801⚠	1-515-805-11	RELAY, POWER

****

*A-1292-261-A AO BOARD, COMPLETE
****

<CAPACITOR>

C2703	1-102-947-00	CERAMIC	10PF	0.5PF	50V
C2704	1-126-233-11	ELECT	22MF	20%	50V
C2705	1-101-003-00	CERAMIC	0.0047MF		50V
C2706	1-102-947-00	CERAMIC	10PF	0.5PF	50V
C2707	1-102-947-00	CERAMIC	10PF	0.5PF	50V
C2708	1-101-004-00	CERAMIC	0.01MF		50V
C2709	1-136-165-00	FILM	0.1MF	5%	50V
C2710	1-136-165-00	FILM	0.1MF	5%	50V
C2711	1-136-165-00	FILM	0.1MF	5%	50V
C2712	1-124-907-11	ELECT	10MF	20%	50V
C2713	1-124-907-11	ELECT	10MF	20%	50V
C2714	1-124-907-11	ELECT	10MF	20%	50V
C2715	1-126-233-11	ELECT	22MF	20%	50V
C2716	1-101-004-00	CERAMIC	0.01MF		50V
C2717	1-124-499-11	ELECT	1MF	20%	50V
C2718	1-101-004-00	CERAMIC	0.01MF		50V
C2719	1-124-261-00	ELECT	10MF	20%	50V
C2720	1-101-004-00	CERAMIC	0.01MF		50V
C2721	1-124-903-11	ELECT	1MF	20%	50V
C2722	1-130-483-00	MYLAR	0.01MF	5%	50V
C2723	1-124-477-11	ELECT	47MF	20%	16V
C2724	1-130-483-00	MYLAR	0.01MF	5%	50V
C2725	1-126-103-11	ELECT	470MF	20%	16V
C2726	1-136-169-00	FILM	0.22MF	5%	50V
C3502	1-124-120-11	ELECT	220MF	20%	16V

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REF.NO.	PART NO.	DESCRIPTION			REMARK
C3510	1-102-112-00	CERAMIC	330PF	10%	50V
C3512	1-124-903-11	ELECT	1MF	20%	50V
C3513	1-136-169-00	FILM	0.22MF	5%	50V
C3514	1-136-169-00	FILM	0.22MF	5%	50V
C3515	1-130-487-00	MYLAR	0.022MF	5%	50V
C3517	1-124-478-11	ELECT	100MF	20%	25V
C3518	1-124-902-00	ELECT	0.47MF	20%	50V
C3519	1-130-471-00	MYLAR	0.001MF	5%	50V
C3520	1-124-477-11	ELECT	47MF	20%	16V
C3521	1-102-110-00	CERAMIC	220PF	10%	50V
C3523	1-124-902-00	ELECT	0.47MF	20%	50V
C3525	1-130-483-00	MYLAR	0.01MF	5%	50V
C3526	1-102-106-00	CERAMIC	100PF	10%	50V
C3527	1-124-903-11	ELECT	1MF	20%	50V
C3528	1-102-129-00	CERAMIC	0.01MF	10%	50V
C3530	1-124-902-00	ELECT	0.47MF	20%	50V
C3531	1-130-479-00	MYLAR	0.0047MF	5%	50V
C3540	1-102-973-00	CERAMIC	100PF	5%	50V
C3541	1-106-359-00	MYLAR	0.0047MF	10%	100V
C3544	1-102-525-11	CERAMIC	68PF	5%	50V
C3545	1-124-257-00	ELECT	2.2MF	20%	50V
C3546	1-102-973-00	CERAMIC	100PF	5%	50V
C3547	1-130-487-00	MYLAR	0.022MF	5%	50V
C3548	1-124-903-11	ELECT	1MF	20%	50V
C3549	1-124-903-11	ELECT	1MF	20%	50V
C3550	1-106-385-00	MYLAR	0.056MF	10%	100V
C3554	1-136-161-00	FILM	0.047MF	5%	50V
C3556	1-124-119-00	ELECT	330MF	20%	16V
C3557	1-136-165-00	FILM	0.1MF	5%	50V
C3558	1-102-125-00	CERAMIC	0.0047MF	10%	50V

<CONNECTOR>

CN1700*	1-691-632-11	CONNECTOR, BOARD TO BOARD 15P
CN1701*	1-691-632-11	CONNECTOR, BOARD TO BOARD 15P
CN1702*	1-564-521-11	PLUG, CONNECTOR 6P

<DIODE>

D2701	8-719-911-19	DIODE 1SS119
D2702	8-719-911-19	DIODE 1SS119
D2703	8-719-911-19	DIODE 1SS119
D2704	8-719-911-19	DIODE 1SS119
D2705	8-719-911-19	DIODE 1SS119
D2706	8-719-911-19	DIODE 1SS119
D2707	8-719-109-71	DIODE RD3.9ES-B1
D2708	8-719-911-19	DIODE 1SS119
D2709	8-719-911-19	DIODE 1SS119
D2710	8-719-110-13	DIODE RD9.1ES-B2
D3502	8-719-109-88	DIODE RD5.6ES-B1
D3503	8-719-110-22	DIODE RD11ES-B2

<IC>

IC2701	8-759-140-53	IC UPD4053BC
IC3501	8-752-057-68	IC CXA1464AS

<TRANSISTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
Q2701	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q2702	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q2703	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q2705	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q2706	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q2707	8-729-900-36	TRANSISTOR DTC124ES	
Q2708	8-729-900-36	TRANSISTOR DTC124ES	
Q2709	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q2710	8-729-900-36	TRANSISTOR DTC124ES	
Q2711	8-729-900-36	TRANSISTOR DTC124ES	
Q2712	8-729-900-36	TRANSISTOR DTC124ES	
Q2713	8-729-900-36	TRANSISTOR DTC124ES	
Q2714	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q2715	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q3504	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q3512	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q3513	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q3514	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q3515	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q3516	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q3519	8-729-900-36	TRANSISTOR DTC124ES	
Q3520	8-729-900-36	TRANSISTOR DTC124ES	
Q3522	8-729-119-78	TRANSISTOR 2SC2785-HFE	

<RESISTOR>

R2701	1-249-441-11	CARBON	100K	5%	1/4W
R2702	1-215-397-00	METAL	100	1%	1/4W
R2703	1-249-422-11	CARBON	2.7K	5%	1/4W
R2704	1-215-397-00	METAL	100	1%	1/4W
R2705	1-249-412-11	CARBON	390	5%	1/4W
R2706	1-249-431-11	CARBON	15K	5%	1/4W
R2707	1-249-438-11	CARBON	56K	5%	1/4W
R2708	1-249-440-11	CARBON	82K	5%	1/4W
R2709	1-249-437-11	CARBON	47K	5%	1/4W
R2710	1-249-438-11	CARBON	56K	5%	1/4W
R2711	1-215-397-00	METAL	100	1%	1/4W
R2712	1-249-429-11	CARBON	10K	5%	1/4W
R2713	1-249-429-11	CARBON	10K	5%	1/4W
R2714	1-215-437-00	METAL	4.7K	1%	1/4W
R2715	1-249-429-11	CARBON	10K	5%	1/4W
R2716	1-215-433-00	METAL	3.3K	1%	1/4W
R2717	1-249-405-11	CARBON	100	5%	1/4W
R2718	1-249-425-11	CARBON	4.7K	5%	1/4W
R2719	1-249-405-11	CARBON	100	5%	1/4W
R2720	1-249-425-11	CARBON	4.7K	5%	1/4W
R2721	1-215-437-00	METAL	4.7K	1%	1/4W
R2722	1-215-433-00	METAL	3.3K	1%	1/4W
R2723	1-249-405-11	CARBON	100	5%	1/4W
R2724	1-249-425-11	CARBON	4.7K	5%	1/4W
R2725	1-215-437-00	METAL	4.7K	1%	1/4W
R2726	1-215-433-00	METAL	3.3K	1%	1/4W
R2727	1-249-441-11	CARBON	100K	5%	1/4W
R2728	1-249-405-11	CARBON	100	5%	1/4W
R2729	1-249-433-11	CARBON	22K	5%	1/4W
R2730	1-249-433-11	CARBON	22K	5%	1/4W
R2732	1-249-429-11	CARBON	10K	5%	1/4W
R2733	1-249-425-11	CARBON	4.7K	5%	1/4W
R2734	1-249-418-11	CARBON	1.2K	5%	1/4W
R2735	1-249-417-11	CARBON	1K	5%	1/4W
R2738	1-249-430-11	CARBON	12K	5%	1/4W
R2739	1-249-428-11	CARBON	8.2K	5%	1/4W
R2740	1-249-429-11	CARBON	10K	5%	1/4W
R2741	1-249-429-11	CARBON	10K	5%	1/4W
R2742	1-249-429-11	CARBON	10K	5%	1/4W
R2743	1-249-429-11	CARBON	10K	5%	1/4W
R2744	1-249-441-11	CARBON	100K	5%	1/4W
R2745	1-249-431-11	CARBON	15K	5%	1/4W

REF.NO.	PART NO.	DESCRIPTION				REMARK
R2746	1-249-435-11	CARBON	33K	5%	1/4W	
R3506	1-249-417-11	CARBON	1K	5%	1/4W	
R3507	1-259-882-11	CARBON	3.3M	5%	1/4W	
R3508	1-249-423-11	CARBON	3.3K	5%	1/4W	
R3509	1-249-429-11	CARBON	10K	5%	1/4W	
R3512	1-215-441-00	METAL	6.8K	1%	1/4W	
R3515	1-249-405-11	CARBON	100	5%	1/4W	
R3516	1-249-405-11	CARBON	100	5%	1/4W	
R3517	1-215-457-00	METAL	33K	1%	1/4W	
R3518	1-249-405-11	CARBON	100	5%	1/4W	
R3520	1-249-417-11	CARBON	1K	5%	1/4W	
R3521	1-249-417-11	CARBON	1K	5%	1/4W	F
R3523	1-249-428-11	CARBON	8.2K	5%	1/4W	
R3524	1-247-891-00	CARBON	330K	5%	1/4W	
R3528	1-259-880-11	CARBON	2.2M	5%	1/4W	
R3531	1-249-421-11	CARBON	2.2K	5%	1/4W	
R3532	1-249-405-11	CARBON	100	5%	1/4W	F
R3533	1-249-405-11	CARBON	100	5%	1/4W	
R3534	1-249-415-11	CARBON	680	5%	1/4W	
R3535	1-249-415-11	CARBON	680	5%	1/4W	
R3557	1-249-421-11	CARBON	2.2K	5%	1/4W	
R3558	1-249-425-11	CARBON	4.7K	5%	1/4W	
R3559	1-249-441-11	CARBON	100K	5%	1/4W	
R3560	1-249-417-11	CARBON	1K	5%	1/4W	
R3561	1-249-433-11	CARBON	22K	5%	1/4W	
R3562	1-249-425-11	CARBON	4.7K	5%	1/4W	
R3563	1-249-417-11	CARBON	1K	5%	1/4W	
R3564	1-249-429-11	CARBON	10K	5%	1/4W	
R3565	1-249-423-11	CARBON	3.3K	5%	1/4W	
R3566	1-249-424-11	CARBON	3.9K	5%	1/4W	
R3567	1-249-425-11	CARBON	4.7K	5%	1/4W	
R3568	1-259-884-11	CARBON	4.7M	5%	1/4W	
R3569	1-249-415-11	CARBON	680	5%	1/4W	
R3588	1-249-437-11	CARBON	47K	5%	1/4W	
R3589	1-247-903-00	CARBON	1M	5%	1/4W	
R3590	1-249-437-11	CARBON	47K	5%	1/4W	

<VARIABLE RESISTOR>

RV2701	1-241-785-21	RES, ADJ, CERMET 10K
RV2702	1-241-788-11	RES, ADJ, CERMET 100K
RV2703	1-241-788-11	RES, ADJ, CERMET 100K
RV2704	1-241-788-11	RES, ADJ, CERMET 100K

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*A-1297-023-A A BOARD, COMPLETE
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4-382-854-11	SCREW (M3X10), P, SW (+)
*4-395-527-01	HOLDER (B), TR

<CAPACITOR>

REF.NO.	PART NO.	DESCRIPTION			REMARK
C507	1-101-004-00	CERAMIC	0.01MF		50V
C1101	1-124-907-11	ELECT	10MF	20%	50V
C1102	1-124-122-11	ELECT	100MF	20%	50V
C1103	1-102-121-00	CERAMIC	0.0022MF	10%	50V
C1104	1-102-121-00	CERAMIC	0.0022MF	10%	50V
C1105	1-102-978-00	CERAMIC	220PF	5%	50V
C1106	1-130-491-00	MYLAR	0.047MF	5%	50V
C1107	1-124-903-11	ELECT	1MF	20%	50V
C1108	1-102-973-00	CERAMIC	100PF	5%	50V
C1110	1-124-472-11	ELECT	470MF	20%	10V
C1111	1-131-343-00	TANTALUM	0.22MF	20%	16V
C1112	1-124-907-11	ELECT	10MF	20%	50V
C1113	1-124-122-11	ELECT	100MF	20%	50V
C1114	1-124-122-11	ELECT	100MF	20%	50V
C1115	1-126-101-11	ELECT	100MF	20%	16V
C1117	1-124-907-11	ELECT	10MF	20%	50V
C1119	1-126-101-11	ELECT	100MF	20%	16V
C1120	1-124-122-11	ELECT	100MF	20%	50V
C1122	1-102-976-00	CERAMIC	180PF	5%	50V
C1123	1-102-976-00	CERAMIC	180PF	5%	50V
C1124	1-124-907-11	ELECT	10MF	20%	50V
C1125	1-130-483-00	MYLAR	0.01MF	5%	50V
C1126	1-136-161-00	FILM	0.047MF	5%	50V
C1127	1-124-907-11	ELECT	10MF	20%	50V
C1128	1-126-301-11	ELECT	1MF	20%	50V
C1130	1-102-978-00	CERAMIC	220PF	5%	50V
C1131	1-130-491-00	MYLAR	0.047MF	5%	50V
C1132	1-124-903-11	ELECT	1MF	20%	50V
C1133	1-102-973-00	CERAMIC	100PF	5%	50V
C1134	1-126-101-11	ELECT	100MF	20%	16V
C1135	1-126-101-11	ELECT	100MF	20%	16V
C1136	1-124-907-11	ELECT	10MF	20%	50V
C1139	1-102-824-00	CERAMIC	470PF	5%	50V
C1140	1-102-824-00	CERAMIC	470PF	5%	50V
C1141	1-102-114-00	CERAMIC	470PF	10%	50V
C1142	1-102-114-00	CERAMIC	470PF	10%	50V
C1143	1-102-114-00	CERAMIC	470PF	10%	50V
C1144	1-102-114-00	CERAMIC	470PF	10%	50V
C1145	1-102-114-00	CERAMIC	470PF	10%	50V
C1146	1-102-114-00	CERAMIC	470PF	10%	50V
C1148	1-102-114-00	CERAMIC	470PF	10%	50V
C1149	1-124-907-11	ELECT	10MF	20%	50V
C1153	1-124-477-11	ELECT	47MF	20%	16V
C1155	1-124-907-11	ELECT	10MF	20%	50V
C1156	1-124-477-11	ELECT	47MF	20%	16V
C1157	1-102-973-00	CERAMIC	100PF	5%	50V
C1158	1-124-903-11	ELECT	1MF	20%	50V
C1159	1-106-351-00	MYLAR	0.0022MF	10%	100V
C1160	1-130-487-00	MYLAR	0.022MF	5%	50V
C1161	1-130-471-00	MYLAR	0.001MF	5%	50V
C1501	1-102-129-00	CERAMIC	0.01MF	10%	50V
C1502	1-124-120-11	ELECT	220MF	20%	16V
C1503	1-136-153-00	FILM	0.01MF	5%	50V
C1504	1-106-383-00	MYLAR	0.047MF		200V
C1505	1-124-907-11	ELECT	10MF	20%	50V
C1506	1-106-359-00	MYLAR	0.0047MF	10%	200V
C1507	1-106-367-00	MYLAR	0.01MF	10%	100V
C1508	1-162-318-11	CERAMIC	0.001MF	10%	500V
C1509	1-102-106-00	CERAMIC	100PF	10%	50V
C1510	1-126-355-11	ELECT	33MF	20%	160V
C1511	1-124-668-11	ELECT	2.2MF	20%	200V
C1512	1-106-391-12	MYLAR	0.1MF	10%	200V
C1513	1-162-318-11	CERAMIC	0.001MF	10%	500V
C1514	1-102-951-00	CERAMIC	15PF	5%	50V
C1515	1-102-959-00	CERAMIC	22PF	5%	50V
C1516	1-101-888-00	CERAMIC	68PF	5%	50V
C1517	1-123-875-11	ELECT	10MF	20%	50V
C1518	1-102-074-00	CERAMIC	0.001MF	10%	50V
C1519	1-106-359-00	MYLAR	0.0047MF	10%	200V
C1520	1-126-233-11	ELECT	22MF	20%	25V
C1521	1-124-907-11	ELECT	10MF	20%	50V
C1524	1-102-108-00	CERAMIC	150PF	10%	50V
C1603	1-136-153-00	FILM	0.01MF	5%	50V
C1605	1-124-907-11	ELECT	10MF	20%	50V
C1606	1-136-153-00	FILM	0.01MF	5%	50V

A

REF.NO.	PART NO.	DESCRIPTION			REMARK
C1607	1-126-233-11	ELECT	22MF	20%	50V
C1608	1-101-004-00	CERAMIC	0.01MF		50V
C1609	1-101-004-00	CERAMIC	0.01MF		50V
C2604	1-124-907-11	ELECT	10MF	20%	50V
C2622	1-136-165-00	FILM	0.1MF	5%	50V
C2625	1-124-477-11	ELECT	47MF	20%	25V
C2626	1-124-477-11	ELECT	47MF	20%	25V
C2630	1-136-165-00	FILM	0.1MF	5%	50V
C2631	1-126-101-11	ELECT	100MF	20%	16V
C2632	1-126-157-11	ELECT	10MF	20%	16V
C2633	1-102-129-00	CERAMIC	0.01MF	10%	50V
C2901	1-101-004-00	CERAMIC	0.01MF		50V
C2902	1-126-233-11	ELECT	22MF	20%	50V
C2903	1-136-169-00	FILM	0.22MF	5%	50V
C2904	1-136-169-00	FILM	0.22MF	5%	50V
C2905	1-102-942-00	CERAMIC	5PF	0.5PF	50V
C2906	1-124-242-00	ELECT	33MF	20%	16V
C2907	1-124-903-11	ELECT	1MF	20%	50V
C3542	1-124-478-11	ELECT	100MF	20%	25V
C3543	1-102-114-00	CERAMIC	470PF	10%	50V
C4403	1-124-477-11	ELECT	47MF	20%	16V

<CONNECTOR>

REF.NO.	PART NO.	DESCRIPTION
CN515	*1-564-506-11	PLUG, CONNECTOR 3P
CN1100	*1-573-979-11	CONNECTOR, BOARD TO BOARD 11P
CN1106	*1-508-784-00	PIN, CONNECTOR (5MM PITCH) 1P
CN1107	*1-564-512-11	PLUG, CONNECTOR 9P
CN1109	*1-691-616-11	CONNECTOR, BOARD TO BOARD 15P
CN1110	*1-564-513-11	PLUG, CONNECTOR 10P
CN1111	*1-564-509-11	PLUG, CONNECTOR 6P
CN1112	*1-565-394-11	PIN, BOARD TO BOARD CONNECTOR
CN1113	*1-565-394-11	PIN, BOARD TO BOARD CONNECTOR
CN1114	*1-508-784-00	PIN, CONNECTOR (5MM PITCH) 1P
CN1116	*1-573-960-11	CONNECTOR (FEMALE) 50P
CN1117	*1-573-960-11	CONNECTOR (FEMALE) 50P
CN1118	*1-573-978-11	CONNECTOR, BOARD TO BOARD 11P
CN1119	*1-573-978-11	CONNECTOR, BOARD TO BOARD 11P
CN1120	*1-564-514-11	PLUG, CONNECTOR 11P
CN1121	*1-564-512-11	PLUG, CONNECTOR 9P
CN1122	*1-564-507-11	PLUG, CONNECTOR 4P
CN1123	*1-564-510-11	PLUG, CONNECTOR 7P
CN1124	*1-564-509-11	PLUG, CONNECTOR 6P
CN1125	*1-564-508-11	PLUG, CONNECTOR 5P
CN1126	*1-508-784-00	PIN, CONNECTOR (5MM PITCH) 1P
CN1128	*1-691-616-11	CONNECTOR, BOARD TO BOARD 15P
CN1129	*1-573-978-11	CONNECTOR, BOARD TO BOARD 11P
CN1140	*1-508-784-00	PIN, CONNECTOR (5MM PITCH) 1P
CN1141	*1-508-784-00	PIN, CONNECTOR (5MM PITCH) 1P
CN1602	*1-564-511-11	PLUG, CONNECTOR 8P
CN1603	*1-564-511-11	PLUG, CONNECTOR 8P
CN1607	*1-564-508-11	PLUG, CONNECTOR 5P
CN1608	*1-564-508-11	PLUG, CONNECTOR 5P
CN1609	*1-564-508-11	PLUG, CONNECTOR 5P
CN1610	*1-691-616-11	CONNECTOR, BOARD TO BOARD 15P
CN1611	*1-691-616-11	CONNECTOR, BOARD TO BOARD 15P

<DIODE>

REF.NO.	PART NO.	DESCRIPTION
D1101	8-719-016-42	DIODE MC932
D1102	8-719-911-19	DIODE 1SS119
D1103	8-719-911-19	DIODE 1SS119
D1104	8-719-109-96	DIODE RD6.8ES-B1
D1105	8-719-109-96	DIODE RD6.8ES-B1
D1108	8-719-911-19	DIODE 1SS119
D1112	8-719-911-19	DIODE 1SS119
D1130	8-719-016-42	DIODE MC932
D1131	8-719-911-19	DIODE 1SS119
D1132	8-719-109-81	DIODE RD4.7ES-B2
D1502	8-719-911-19	DIODE 1SS119
D1503	8-719-911-19	DIODE 1SS119
D1504	8-719-911-19	DIODE 1SS119
D1505	8-719-911-19	DIODE 1SS119
D1506	8-719-911-19	DIODE 1SS119
D1507	8-719-110-88	DIODE RD39ES-B2
D1508	8-719-110-88	DIODE RD39ES-B2
D2601	8-719-911-19	DIODE 1SS119
D2607	8-719-160-86	DIODE RD33F-B1
D2901	8-719-911-19	DIODE 1SS119
D2902	8-719-911-19	DIODE 1SS119
D2904	8-719-911-19	DIODE 1SS119
D2906	8-719-911-19	DIODE 1SS119
D2907	8-719-911-19	DIODE 1SS119
D2908	8-719-911-19	DIODE 1SS119
D2909	8-719-911-19	DIODE 1SS119
D2910	8-719-911-19	DIODE 1SS119
D2911	8-719-911-19	DIODE 1SS119
D2912	8-719-911-19	DIODE 1SS119

<IC>

REF.NO.	PART NO.	DESCRIPTION
IC1101	8-759-800-81	IC LA7016
IC1601	8-752-058-71	IC CXA1656S
IC2603	8-759-065-07	IC PQ05RF2
IC2604	8-759-929-62	IC LM7812CT
IC2606	8-759-095-63	IC PQ09RF2

<IF BLOCK>

REF.NO.	PART NO.	DESCRIPTION
IF1101	1-466-677-11	IF BLOCK (IFF-380)
IF1102	1-466-138-11	IF BLOCK (IFD-380A)

<JACK>

REF.NO.	PART NO.	DESCRIPTION
J1101	1-507-562-00	JACK
J1102	1-507-562-00	JACK

<COIL>

REF.NO.	PART NO.	DESCRIPTION	
L1101	1-410-478-11	INDUCTOR	47UH
L1102	1-410-478-11	INDUCTOR	47UH
L1103	1-410-478-11	INDUCTOR	47UH
L1104	1-410-478-11	INDUCTOR	47UH
L1105	1-410-478-11	INDUCTOR	47UH
L1106	1-410-478-11	INDUCTOR	47UH
L1107	1-408-429-00	INDUCTOR	470UH
L1108	1-410-478-11	INDUCTOR	47UH
L1109	1-459-155-00	COIL (WITH CORE)	45UH
L1110	1-410-645-31	INDUCTOR	100UH
L1201	1-410-470-11	INDUCTOR	10UH
L1203	1-410-478-11	INDUCTOR	47UH
L1502	1-408-418-00	INDUCTOR	56UH
L2903	1-410-645-31	INDUCTOR	100UH
L2904	1-410-676-31	INDUCTOR	150UH

<TRANSISTOR>

REF.NO.	PART NO.	DESCRIPTION
Q1101	8-729-119-76	TRANSISTOR 2SA1175-HFE
Q1102	8-729-119-76	TRANSISTOR 2SA1175-HFE
Q1103	8-729-119-76	TRANSISTOR 2SA1175-HFE
Q1104	8-729-119-78	TRANSISTOR 2SC2785-HFE

REF.NO.	PART NO.	DESCRIPTION	REMARK
Q1105	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q1106	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q1107	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q1108	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q1110	8-729-808-36	TRANSISTOR 2SK669	
Q1112	8-729-808-36	TRANSISTOR 2SK669	
Q1113	8-729-900-89	TRANSISTOR DTC144ES	
Q1116	8-729-900-80	TRANSISTOR DTC114ES	
Q1117	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q1118	8-729-900-89	TRANSISTOR DTC144ES	
Q1119	8-729-900-89	TRANSISTOR DTC144ES	
Q1120	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q1121	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q1130	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q1132	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q1135	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q1501	8-729-208-39	TRANSISTOR 2SA1306A-Y	
Q1502	8-729-208-72	TRANSISTOR 2SC3298B-Y	
Q1503	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q1504	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q1505	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q1506	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q1507	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q1508	8-729-142-86	TRANSISTOR 2SC3733	
Q1509	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q1601	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q1602	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q1603	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q1605	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q2001	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q2002	8-729-900-85	TRANSISTOR DTC144WS	
Q2901	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q2902	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q3517	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q4402	8-729-119-76	TRANSISTOR 2SA1175-HFE	

<RESISTOR>

REF.NO.	PART NO.	DESCRIPTION				REMARK
R514	1-249-414-11	CARBON	560	5%	1/4W	
R515	1-249-429-11	CARBON	10K	5%	1/4W	
R1103	1-249-415-11	CARBON	680	5%	1/4W	
R1104	1-247-903-00	CARBON	1M	5%	1/4W	
R1105	1-249-441-11	CARBON	100K	5%	1/4W	
R1106	1-249-429-11	CARBON	10K	5%	1/4W	
R1107	1-249-429-11	CARBON	10K	5%	1/4W	
R1108	1-249-431-11	CARBON	15K	5%	1/4W	
R1109	1-249-437-11	CARBON	47K	5%	1/4W	
R1110	1-249-439-11	CARBON	68K	5%	1/4W	
R1111	1-249-421-11	CARBON	2.2K	5%	1/4W	
R1112	1-249-429-11	CARBON	10K	5%	1/4W	
R1113	1-249-425-11	CARBON	4.7K	5%	1/4W	
R1114	1-249-441-11	CARBON	100K	5%	1/4W	
R1115	1-249-433-11	CARBON	22K	5%	1/4W	
R1116	1-249-413-11	CARBON	470	5%	1/4W	
R1117	1-249-404-00	CARBON	82	5%	1/4W	
R1118	1-249-437-11	CARBON	47K	5%	1/4W	
R1119	1-249-437-11	CARBON	47K	5%	1/4W	
R1120	1-249-441-11	CARBON	100K	5%	1/4W	
R1121	1-249-441-11	CARBON	100K	5%	1/4W	
R1122	1-249-395-11	CARBON	15	5%	1/4W	F
R1123	1-249-395-11	CARBON	15	5%	1/4W	F
R1124	1-249-429-11	CARBON	10K	5%	1/4W	
R1125	1-249-429-11	CARBON	10K	5%	1/4W	
R1126	1-249-409-11	CARBON	220	5%	1/4W	
R1129	1-249-428-11	CARBON	8.2K	5%	1/4W	
R1130	1-249-415-11	CARBON	680	5%	1/4W	
R1131	1-247-903-00	CARBON	1M	5%	1/4W	
R1132	1-249-441-11	CARBON	100K	5%	1/4W	
R1133	1-249-429-11	CARBON	10K	5%	1/4W	
R1134	1-249-429-11	CARBON	10K	5%	1/4W	
R1135	1-249-428-11	CARBON	8.2K	5%	1/4W	
R1136	1-249-405-11	CARBON	100	5%	1/4W	
R1137	1-249-413-11	CARBON	470	5%	1/4W	
R1139	1-249-425-11	CARBON	4.7K	5%	1/4W	
R1140	1-249-433-11	CARBON	22K	5%	1/4W	
R1141	1-249-429-11	CARBON	10K	5%	1/4W	
R1144	1-249-425-11	CARBON	4.7K	5%	1/4W	
R1145	1-249-433-11	CARBON	22K	5%	1/4W	
R1146	1-249-429-11	CARBON	10K	5%	1/4W	
R1148	1-249-441-11	CARBON	100K	5%	1/4W	
R1149	1-247-881-00	CARBON	120K	5%	1/4W	
R1150	1-249-409-11	CARBON	220	5%	1/4W	
R1152	1-249-417-11	CARBON	1K	5%	1/4W	
R1153	1-249-417-11	CARBON	1K	5%	1/4W	
R1154	1-249-409-11	CARBON	220	5%	1/4W	
R1155	1-249-409-11	CARBON	220	5%	1/4W	
R1161	1-249-440-11	CARBON	82K	5%	1/4W	
R1162	1-249-417-11	CARBON	1K	5%	1/4W	
R1163	1-249-423-11	CARBON	3.3K	5%	1/4W	
R1164	1-249-425-11	CARBON	4.7K	5%	1/4W	
R1165	1-249-429-11	CARBON	10K	5%	1/4W	
R1166	1-247-889-00	CARBON	270K	5%	1/4W	
R1167	1-247-889-00	CARBON	270K	5%	1/4W	
R1168	1-249-435-11	CARBON	33K	5%	1/4W	
R1169	1-249-405-11	CARBON	100	5%	1/4W	
R1170	1-249-417-11	CARBON	1K	5%	1/4W	
R1171	1-249-429-11	CARBON	10K	5%	1/4W	
R1172	1-249-435-11	CARBON	33K	5%	1/4W	
R1173	1-249-417-11	CARBON	1K	5%	1/4W	
R1174	1-249-441-11	CARBON	100K	5%	1/4W	
R1175	1-249-437-11	CARBON	47K	5%	1/4W	
R1176	1-249-435-11	CARBON	33K	5%	1/4W	
R1177	1-249-423-11	CARBON	3.3K	5%	1/4W	
R1178	1-249-423-11	CARBON	3.3K	5%	1/4W	
R1501	1-249-385-11	CARBON	2.2	5%	1/4W	F
R1502	1-249-414-11	CARBON	560	5%	1/4W	F
R1503	1-247-734-11	CARBON	39	5%	1/2W	F
R1504	1-249-384-11	CARBON	1.8	5%	1/4W	F
R1505	1-249-405-11	CARBON	100	5%	1/4W	
R1506	1-249-419-11	CARBON	1.5K	5%	1/4W	
R1507	1-249-415-11	CARBON	680	5%	1/4W	
R1508	1-249-436-11	CARBON	39K	5%	1/4W	
R1509	1-249-421-11	CARBON	2.2K	5%	1/4W	
R1510	1-249-436-11	CARBON	39K	5%	1/4W	
R1511	1-249-418-11	CARBON	1.2K	5%	1/4W	
R1512	1-249-441-11	CARBON	100K	5%	1/4W	
R1513	1-249-432-11	CARBON	18K	5%	1/4W	
R1514	1-249-405-11	CARBON	100	5%	1/4W	
R1515	1-249-435-11	CARBON	33K	5%	1/4W	
R1517	1-249-417-11	CARBON	1K	5%	1/4W	F
R1519	1-215-916-00	METAL OXIDE	680	5%	3W	F
R1520	1-249-432-11	CARBON	18K	5%	1/4W	
R1521	1-249-414-11	CARBON	560	5%	1/4W	
R1522	1-249-384-11	CARBON	1.8	5%	1/4W	F
R1523	1-249-400-11	CARBON	39	5%	1/4W	F
R1524	1-249-418-11	CARBON	1.2K	5%	1/4W	
R1525	1-249-421-11	CARBON	2.2K	5%	1/4W	
R1526	1-249-426-11	CARBON	5.6K	5%	1/4W	

REF.NO.	PART NO.	DESCRIPTION				REMARK
R1527	1-249-414-11	CARBON	560	5%	1/4W	
R1528	1-249-429-11	CARBON	10K	5%	1/4W	
R1529	1-249-414-11	CARBON	560	5%	1/4W	
R1530	1-216-451-11	METAL OXIDE	120	5%	2W	F
R1531	1-249-429-11	CARBON	10K	5%	1/4W	
R1533	1-247-903-00	CARBON	1M	5%	1/4W	
R1534	1-249-421-11	CARBON	2.2K	5%	1/4W	
R1535	1-249-392-11	CARBON	8.2	5%	1/4W	F
R1536	1-249-433-11	CARBON	22K	5%	1/4W	
R1537	1-249-433-11	CARBON	22K	5%	1/4W	
R1538	1-249-413-11	CARBON	470	5%	1/4W	
R1539	1-249-412-11	CARBON	390	5%	1/4W	
R1540	1-249-411-11	CARBON	330	5%	1/4W	
R1602	1-249-405-11	CARBON	100	5%	1/4W	
R1603	1-249-405-11	CARBON	100	5%	1/4W	
R1604	1-249-423-11	CARBON	3.3K	5%	1/4W	
R1605	1-249-417-11	CARBON	1K	5%	1/4W	
R1606	1-249-405-11	CARBON	100	5%	1/4W	
R1608	1-249-420-11	CARBON	1.8K	5%	1/4W	
R1609	1-249-417-11	CARBON	1K	5%	1/4W	
R1610	1-249-417-11	CARBON	1K	5%	1/4W	
R1611	1-249-417-11	CARBON	1K	5%	1/4W	
R1612	1-249-417-11	CARBON	1K	5%	1/4W	
R1613	1-249-417-11	CARBON	1K	5%	1/4W	
R1615	1-215-455-00	METAL	27K	1%	1/4W	
R1616	1-249-420-11	CARBON	1.8K	5%	1/4W	
R1617	1-249-429-11	CARBON	10K	5%	1/4W	
R1618	1-249-415-11	CARBON	680	5%	1/4W	
R1619	1-249-415-11	CARBON	680	5%	1/4W	
R1620	1-249-415-11	CARBON	680	5%	1/4W	
R1624	1-249-405-11	CARBON	100	5%	1/4W	
R1625	1-249-405-11	CARBON	100	5%	1/4W	
R1626	1-249-405-11	CARBON	100	5%	1/4W	
R2001	1-249-437-11	CARBON	47K	5%	1/4W	
R2002	1-249-423-11	CARBON	3.3K	5%	1/4W	
R2003	1-249-423-11	CARBON	3.3K	5%	1/4W	
R2601	1-249-429-11	CARBON	10K	5%	1/4W	
R2602	1-215-896-00	METAL OXIDE	4.7K	5%	2W	F
R2603	1-205-909-11	WIREWOUND	3.3	5%	10W	
R2901	1-249-409-11	CARBON	220	5%	1/4W	
R2902	1-249-405-11	CARBON	100	5%	1/4W	
R2903	1-249-429-11	CARBON	10K	5%	1/4W	
R2904	1-249-441-11	CARBON	100K	5%	1/4W	
R2905	1-249-417-11	CARBON	1K	5%	1/4W	
R2906	1-249-421-11	CARBON	2.2K	5%	1/4W	
R2907	1-249-433-11	CARBON	22K	5%	1/4W	
R2909	1-249-417-11	CARBON	1K	5%	1/4W	
R2912	1-216-459-00	METAL OXIDE	2.7K	5%	2W	F
R2913	1-249-429-11	CARBON	10K	5%	1/4W	
R2914	1-249-441-11	CARBON	100K	5%	1/4W	
R2915	1-216-390-11	METAL OXIDE	1.2	5%	3W	F
R2916	1-249-429-11	CARBON	10K	5%	1/4W	
R3570	1-249-441-11	CARBON	100K	5%	1/4W	
R3571	1-249-441-11	CARBON	100K	5%	1/4W	
R4404	1-249-432-11	CARBON	18K	5%	1/4W	
R4405	1-249-439-11	CARBON	68K	5%	1/4W	
R4406	1-249-417-11	CARBON	1K	5%	1/4W	

<TUNER>

REF.NO.	PART NO.	DESCRIPTION
TU1101	1-693-123-11	TUNER, ET (BTP-RG401)
TU1102	1-693-123-11	TUNER, ET (BTP-RG401)

****

*A-1306-423-A M BOARD, COMPLETE
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3-741-396-01 INSULATOR

<CAPACITOR>

REF.NO.	PART NO.	DESCRIPTION				REMARK
C001	1-124-907-11	ELECT	10MF	20%	50V	
C002	1-124-907-11	ELECT	10MF	20%	50V	
C003	1-163-033-00	CERAMIC CHIP	0.022MF		50V	
C004	1-163-001-11	CERAMIC CHIP	220PF	10%	50V	
C005	1-163-001-11	CERAMIC CHIP	220PF	10%	50V	
C006	1-163-001-11	CERAMIC CHIP	220PF	10%	50V	
C009	1-136-175-00	FILM	0.068MF	5%	50V	
C010	1-163-001-11	CERAMIC CHIP	220PF	10%	50V	
C012	1-124-477-11	ELECT	47MF	20%	25V	
C014	1-163-001-11	CERAMIC CHIP	220PF	10%	50V	
C015	1-163-001-11	CERAMIC CHIP	220PF	10%	50V	
C016	1-163-001-11	CERAMIC CHIP	220PF	10%	50V	
C017	1-163-001-11	CERAMIC CHIP	220PF	10%	50V	
C018	1-163-001-11	CERAMIC CHIP	220PF	10%	50V	
C019	1-163-001-11	CERAMIC CHIP	220PF	10%	50V	
C020	1-163-001-11	CERAMIC CHIP	220PF	10%	50V	
C021	1-124-477-11	ELECT	47MF	20%	25V	
C022	1-163-001-11	CERAMIC CHIP	220PF	10%	50V	
C023	1-163-001-11	CERAMIC CHIP	220PF	10%	50V	
C024	1-163-001-11	CERAMIC CHIP	220PF	10%	50V	
C025	1-124-477-11	ELECT	47MF	20%	25V	
C026	1-163-099-00	CERAMIC CHIP	18PF	5%	50V	
C027	1-163-001-11	CERAMIC CHIP	220PF	10%	50V	
C028	1-163-001-11	CERAMIC CHIP	220PF	10%	50V	
C029	1-163-103-00	CERAMIC CHIP	27PF	5%	50V	
C030	1-163-031-11	CERAMIC CHIP	0.01MF		50V	
C031	1-163-001-11	CERAMIC CHIP	220PF	10%	50V	
C033	1-163-097-00	CERAMIC CHIP	15PF	5%	50V	
C034	1-163-087-00	CERAMIC CHIP	4PF	0.25PF	50V	
C035	1-163-105-00	CERAMIC CHIP	33PF	5%	50V	
C036	1-163-105-00	CERAMIC CHIP	33PF	5%	50V	
C037	1-163-001-11	CERAMIC CHIP	220PF	10%	50V	
C038	1-163-001-11	CERAMIC CHIP	220PF	10%	50V	
C039	1-163-001-11	CERAMIC CHIP	220PF	10%	50V	
C040	1-163-001-11	CERAMIC CHIP	220PF	10%	50V	
C041	1-124-477-11	ELECT	47MF	20%	25V	
C042	1-163-001-11	CERAMIC CHIP	220PF	10%	50V	
C043	1-163-001-11	CERAMIC CHIP	220PF	10%	50V	
C044	1-124-907-11	ELECT	10MF	20%	50V	
C045	1-163-001-11	CERAMIC CHIP	220PF	10%	50V	
C046	1-163-001-11	CERAMIC CHIP	220PF	10%	50V	
C047	1-163-001-11	CERAMIC CHIP	220PF	10%	50V	
C048	1-163-001-11	CERAMIC CHIP	220PF	10%	50V	
C049	1-163-001-11	CERAMIC CHIP	220PF	10%	50V	
C050	1-163-001-11	CERAMIC CHIP	220PF	10%	50V	
C051	1-163-001-11	CERAMIC CHIP	220PF	10%	50V	
C052	1-163-001-11	CERAMIC CHIP	220PF	10%	50V	
C053	1-163-001-11	CERAMIC CHIP	220PF	10%	50V	
C054	1-163-001-11	CERAMIC CHIP	220PF	10%	50V	
C055	1-163-001-11	CERAMIC CHIP	220PF	10%	50V	
C056	1-163-001-11	CERAMIC CHIP	220PF	10%	50V	
C057	1-163-001-11	CERAMIC CHIP	220PF	10%	50V	
C058	1-163-001-11	CERAMIC CHIP	220PF	10%	50V	
C059	1-124-477-11	ELECT	47MF	20%	25V	
C060	1-163-001-11	CERAMIC CHIP	220PF	10%	50V	
C061	1-163-001-11	CERAMIC CHIP	220PF	10%	50V	
C062	1-163-001-11	CERAMIC CHIP	220PF	10%	50V	

REF.NO.	PART NO.	DESCRIPTION			REMARK
C063	1-163-001-11	CERAMIC CHIP 220PF		10%	50V
C064	1-163-001-11	CERAMIC CHIP 220PF		10%	50V
C065	1-163-001-11	CERAMIC CHIP 220PF		10%	50V
C066	1-124-927-11	ELECT	4.7MF	20%	50V
C067	1-163-001-11	CERAMIC CHIP 220PF		10%	50V
C068	1-124-927-11	ELECT	4.7MF	20%	50V
C069	1-124-927-11	ELECT	4.7MF	20%	50V
C070	1-124-927-11	ELECT	4.7MF	20%	50V
C071	1-124-927-11	ELECT	4.7MF	20%	50V
C072	1-163-001-11	CERAMIC CHIP 220PF		10%	50V
C073	1-136-165-00	FILM	0.1MF	5%	50V

<CONNECTOR>

REF.NO.	PART NO.	DESCRIPTION
CN001	*1-564-525-11	PLUG, CONNECTOR 10P
CN002	*1-573-965-11	PIN, CONNECTOR (PC BOARD) 50P

<DIODE>

REF.NO.	PART NO.	DESCRIPTION
D003	8-719-800-76	DIODE 1SS226

<IC>

REF.NO.	PART NO.	DESCRIPTION
IC001	8-759-043-86	IC ST24C02AB1
IC002	8-759-043-86	IC ST24C02AB1
IC003	8-759-403-44	IC MN1280-S
IC004	8-759-069-75	IC MB90061-125
IC005	8-759-156-03	IC M37204M8-A12SP
IC006	8-759-112-06	IC UPC78N05H

<COIL>

REF.NO.	PART NO.	DESCRIPTION	
L001	1-410-470-11	INDUCTOR	10UH
L002	1-408-413-00	INDUCTOR	22UH
L003	1-410-470-11	INDUCTOR	10UH
L004	1-410-470-11	INDUCTOR	10UH
L005	1-410-470-11	INDUCTOR	10UH

<TRANSISTOR>

REF.NO.	PART NO.	DESCRIPTION
Q001	8-729-230-49	TRANSISTOR 2SC2712-YG
Q002	8-729-230-49	TRANSISTOR 2SC2712-YG
Q003	8-729-901-01	TRANSISTOR DTC144EK
Q004	8-729-901-01	TRANSISTOR DTC144EK
Q005	8-729-901-01	TRANSISTOR DTC144EK

<RESISTOR>

REF.NO.	PART NO.	DESCRIPTION			
R001	1-216-033-00	METAL GLAZE	220	5%	1/10W
R002	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W
R003	1-216-033-00	METAL GLAZE	220	5%	1/10W
R004	1-216-033-00	METAL GLAZE	220	5%	1/10W
R005	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R006	1-216-033-00	METAL GLAZE	220	5%	1/10W
R007	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W
R008	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R009	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R010	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R011	1-216-033-00	METAL GLAZE	220	5%	1/10W
R012	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R013	1-216-033-00	METAL GLAZE	220	5%	1/10W
R014	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R015	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W

REF.NO.	PART NO.	DESCRIPTION			REMARK
R016	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R017	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R018	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R019	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R020	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R021	1-216-033-00	METAL GLAZE	220	5%	1/10W
R022	1-216-033-00	METAL GLAZE	220	5%	1/10W
R023	1-216-033-00	METAL GLAZE	220	5%	1/10W
R024	1-216-033-00	METAL GLAZE	220	5%	1/10W
R025	1-216-033-00	METAL GLAZE	220	5%	1/10W
R026	1-216-033-00	METAL GLAZE	220	5%	1/10W
R027	1-216-033-00	METAL GLAZE	220	5%	1/10W
R028	1-216-033-00	METAL GLAZE	220	5%	1/10W
R029	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R031	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R032	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R033	1-216-033-00	METAL GLAZE	220	5%	1/10W
R034	1-216-033-00	METAL GLAZE	220	5%	1/10W
R035	1-216-033-00	METAL GLAZE	220	5%	1/10W
R036	1-216-033-00	METAL GLAZE	220	5%	1/10W
R037	1-216-033-00	METAL GLAZE	220	5%	1/10W
R038	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R039	1-216-033-00	METAL GLAZE	220	5%	1/10W
R040	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R042	1-216-033-00	METAL GLAZE	220	5%	1/10W
R043	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R044	1-216-033-00	METAL GLAZE	220	5%	1/10W
R045	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R046	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R047	1-216-033-00	METAL GLAZE	220	5%	1/10W
R048	1-216-025-00	METAL GLAZE	100	5%	1/10W
R049	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R050	1-216-033-00	METAL GLAZE	220	5%	1/10W
R051	1-216-033-00	METAL GLAZE	220	5%	1/10W
R052	1-216-033-00	METAL GLAZE	220	5%	1/10W
R053	1-216-033-00	METAL GLAZE	220	5%	1/10W
R054	1-216-033-00	METAL GLAZE	220	5%	1/10W
R055	1-216-033-00	METAL GLAZE	220	5%	1/10W
R056	1-216-033-00	METAL GLAZE	220	5%	1/10W
R057	1-216-033-00	METAL GLAZE	220	5%	1/10W
R058	1-216-033-00	METAL GLAZE	220	5%	1/10W
R059	1-216-033-00	METAL GLAZE	220	5%	1/10W
R064	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R065	1-216-033-00	METAL GLAZE	220	5%	1/10W
R066	1-216-033-00	METAL GLAZE	220	5%	1/10W
R067	1-216-033-00	METAL GLAZE	220	5%	1/10W
R068	1-216-033-00	METAL GLAZE	220	5%	1/10W
R069	1-216-033-00	METAL GLAZE	220	5%	1/10W
R070	1-216-033-00	METAL GLAZE	220	5%	1/10W
R071	1-216-033-00	METAL GLAZE	220	5%	1/10W
R072	1-216-033-00	METAL GLAZE	220	5%	1/10W
R073	1-216-033-00	METAL GLAZE	220	5%	1/10W
R074	1-216-033-00	METAL GLAZE	220	5%	1/10W
R075	1-216-033-00	METAL GLAZE	220	5%	1/10W
R076	1-216-033-00	METAL GLAZE	220	5%	1/10W
R077	1-216-033-00	METAL GLAZE	220	5%	1/10W
R078	1-216-033-00	METAL GLAZE	220	5%	1/10W
R079	1-216-033-00	METAL GLAZE	220	5%	1/10W
R080	1-216-033-00	METAL GLAZE	220	5%	1/10W
R081	1-216-033-00	METAL GLAZE	220	5%	1/10W
R082	1-216-033-00	METAL GLAZE	220	5%	1/10W
R083	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R084	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R085	1-216-073-00	METAL GLAZE	10K	5%	1/10W

REF.NO.	PART NO.	DESCRIPTION	REMARK
R086	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R087	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R088	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R089	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R090	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R091	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R092	1-216-071-00	METAL GLAZE 8.2K 5% 1/10W	
R093	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R094	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R095	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R096	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R097	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R098	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R099	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R100	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R101	1-216-049-00	METAL GLAZE 1K 5% 1/10W	

<CRYSTAL>

REF.NO.	PART NO.	DESCRIPTION	REMARK
X001	1-577-082-11	VIBRATOR, CERAMIC	
X002	1-577-289-11	VIBRATOR, CRYSTAL 17.7MHZ	

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*A-1297-031-A AI BOARD, COMPLETE
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<FILTER>

REF.NO.	PART NO.	DESCRIPTION	REMARK
BP101	1-236-477-11	FILTER, BAND PASS	

<CAPACITOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
C101	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C102	1-163-009-11	CERAMIC CHIP 0.001MF 10%	50V
C103	1-124-907-11	ELECT 10MF 20%	50V
C104	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C105	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C106	1-163-009-11	CERAMIC CHIP 0.001MF 10%	50V
C107	1-124-478-11	ELECT 100MF 20%	25V
C108	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C109	1-163-123-00	CERAMIC CHIP 180PF 5%	50V
C110	1-163-123-00	CERAMIC CHIP 180PF 5%	50V
C111	1-164-344-11	CERAMIC CHIP 0.068MF 10%	25V
C112	1-164-232-11	CERAMIC CHIP 0.01MF 10%	50V
C113	1-163-113-00	CERAMIC CHIP 68PF 5%	50V
C114	1-163-121-00	CERAMIC CHIP 150PF 5%	50V
C115	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C116	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C117	1-163-121-00	CERAMIC CHIP 150PF 5%	50V
C118	1-164-232-11	CERAMIC CHIP 0.01MF 10%	50V
C119	1-136-167-00	FILM 0.15MF 5%	50V
C120	1-163-119-00	CERAMIC CHIP 120PF 5%	50V
C121	1-163-009-11	CERAMIC CHIP 0.001MF 10%	50V
C122	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C123	1-163-009-11	CERAMIC CHIP 0.001MF 10%	50V
C124	1-163-113-00	CERAMIC CHIP 68PF 5%	50V
C125	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C126	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C127	1-126-101-11	ELECT 100MF 20%	16V
C128	1-124-907-11	ELECT 10MF 20%	50V
C129	1-126-101-11	ELECT 100MF 20%	16V
C130	1-126-101-11	ELECT 100MF 20%	16V
C131	1-126-101-11	ELECT 100MF 20%	16V
C132	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C133	1-126-101-11	ELECT 100MF 20%	16V
C134	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C135	1-126-101-11	ELECT 100MF 20%	16V
C136	1-163-989-11	CERAMIC CHIP 0.033MF 10%	25V
C137	1-164-004-11	CERAMIC CHIP 0.1MF 10%	25V
C138	1-164-232-11	CERAMIC CHIP 0.01MF 10%	50V
C139	1-163-009-11	CERAMIC CHIP 0.001MF 10%	50V
C140	1-163-009-11	CERAMIC CHIP 0.001MF 10%	50V
C141	1-126-101-11	ELECT 100MF 20%	16V
C142	1-163-989-11	CERAMIC CHIP 0.033MF 10%	25V
C143	1-164-004-11	CERAMIC CHIP 0.1MF 10%	25V
C144	1-164-232-11	CERAMIC CHIP 0.01MF 10%	50V
C145	1-163-009-11	CERAMIC CHIP 0.001MF 10%	50V
C146	1-163-009-11	CERAMIC CHIP 0.001MF 10%	50V
C147	1-124-907-11	ELECT 10MF 20%	50V
C148	1-126-101-11	ELECT 100MF 20%	16V
C149	1-126-101-11	ELECT 100MF 20%	16V
C150	1-124-907-11	ELECT 10MF 20%	50V
C151	1-126-101-11	ELECT 100MF 20%	16V
C152	1-124-477-11	ELECT 47MF 20%	16V
C153	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C154	1-126-101-11	ELECT 100MF 20%	16V
C155	1-126-101-11	ELECT 100MF 20%	16V
C156	1-126-101-11	ELECT 100MF 20%	16V
C157	1-124-477-11	ELECT 47MF 20%	16V
C158	1-126-101-11	ELECT 100MF 20%	16V
C159	1-126-101-11	ELECT 100MF 20%	16V
C160	1-124-907-11	ELECT 10MF 20%	50V
C201	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C202	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C203	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C204	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C205	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C206	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C207	1-216-295-00	METAL GLAZE 0 5% 1/10W	
C208	1-124-903-11	ELECT 1MF 20%	50V
C209	1-124-477-11	ELECT 47MF 20%	16V
C210	1-124-477-11	ELECT 47MF 20%	16V
C211	1-136-153-00	FILM 0.01MF 5%	50V
C212	1-136-153-00	FILM 0.01MF 5%	50V
C213	1-126-233-11	ELECT 22MF 20%	50V
C214	1-126-233-11	ELECT 22MF 20%	50V
C215	1-163-157-00	FILM 0.022MF 5%	50V
C216	1-136-165-00	FILM 0.1MF 5%	50V
C217	1-136-169-00	FILM 0.22MF 5%	50V
C218	1-136-161-00	FILM 0.047MF 5%	50V
C219	1-124-034-51	ELECT 33MF 20%	16V
C220	1-124-477-11	ELECT 47MF 20%	16V
C221	1-124-477-11	ELECT 47MF 20%	16V
C222	1-124-477-11	ELECT 47MF 20%	16V
C223	1-124-477-11	ELECT 47MF 20%	16V
C224	1-124-907-11	ELECT 10MF 20%	50V
C225	1-163-121-00	CERAMIC CHIP 150PF 5%	50V
C226	1-163-119-00	CERAMIC CHIP 120PF 5%	50V
C227	1-136-298-00	FILM 0.0033MF 5%	100V
C228	1-106-343-00	MYLAR 0.001MF 10%	100V
C229	1-124-907-11	ELECT 10MF 20%	50V
C230	1-124-903-11	ELECT 1MF 20%	50V
C231	1-124-903-11	ELECT 1MF 20%	50V
C232	1-163-119-00	CERAMIC CHIP 120PF 5%	50V
C233	1-124-907-11	ELECT 10MF 20%	50V
C234	1-136-169-00	FILM 0.22MF 5%	50V
C235	1-130-479-00	MYLAR 0.0047MF 5%	50V

REF.NO.	PART NO.	DESCRIPTION			REMARK
C236	1-136-153-00	FILM	0.01MF	5%	50V
C237	1-124-903-11	ELECT	1MF	20%	50V
C238	1-136-169-00	FILM	0.22MF	5%	50V
C239	1-124-120-11	ELECT	220MF	20%	16V
C240	1-124-477-11	ELECT	47MF	20%	16V
C241	1-124-477-11	ELECT	47MF	20%	16V
C242	1-126-096-11	ELECT	10MF	20%	25V
C243	1-126-096-11	ELECT	10MF	20%	25V
C244	1-126-096-11	ELECT	10MF	20%	25V
C245	1-126-096-11	ELECT	10MF	20%	25V
C246	1-124-034-51	ELECT	33MF	20%	16V
C247	1-124-229-00	ELECT	33MF	20%	10V
C248	1-124-034-51	ELECT	33MF	20%	16V
C249	1-124-034-51	ELECT	33MF	20%	16V
C250	1-126-101-11	ELECT	100MF	20%	16V
C253	1-130-495-00	MYLAR	0.1MF	5%	50V
C256	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C257	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V
C260	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C265	1-124-034-51	ELECT	33MF	20%	16V
C267	1-124-907-11	ELECT	10MF	20%	50V
C268	1-163-127-00	CERAMIC CHIP	270PF	5%	50V
C269	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C270	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C271	1-163-038-00	CERAMIC CHIP	0.1MF		25V

<FILTER>

CDA201	1-404-751-11	DISCRIMINATOR, CERAMIC
CDA202	1-404-750-11	DISCRIMINATOR, CERAMIC
CF102	1-404-134-00	TRAP, CERAMIC (5.5MHZ)
SFT201	1-527-840-00	FILTER, CERAMIC
SFT202	1-527-839-00	FILTER, CERAMIC

<CONNECTOR>

CN101	*1-573-979-11	CONNECTOR, BOARD TO BOARD 11P
CN102	*1-573-979-11	CONNECTOR, BOARD TO BOARD 11P

<TRIMMER>

CV101	1-141-260-00	TRIMMER, CERAMIC

<DIODE>

D101	8-719-988-70	DIODE BB405B
D102	8-719-988-71	DIODE BB809
D103	8-719-400-18	DIODE MA152WK
D104	8-719-400-18	DIODE MA152WK
D105	8-719-914-44	DIODE DAP202K
D107	8-719-400-18	DIODE MA152WK
D108	8-719-914-44	DIODE DAP202K
D109	8-719-911-19	DIODE 1SS119
D110	8-719-911-19	DIODE 1SS119
D201	8-719-400-18	DIODE MA152WK
D202	8-719-109-84	DIODE RD5.1ES-B1

<IC>

IC101	8-759-511-88	IC TDA8732
IC102	8-759-511-89	IC SAA7280
IC103	8-759-900-02	IC SN74LS02N
IC104	8-759-900-72	IC NE5532P
IC105	8-759-900-72	IC NE5532P

REF.NO.	PART NO.	DESCRIPTION	REMARK
IC106	8-759-140-53	IC UPD4053BC	
IC107	8-759-504-22	IC TDA1543	
IC201	8-759-003-90	IC TBA129	
IC202	8-759-003-90	IC TBA129	
IC203	8-759-030-48	IC TDA6600-2	
IC204	8-759-513-48	IC TDA2595/V9	
IC205	8-759-000-49	IC MC14066BCP	
IC206	8-759-000-48	IC MC14052BCP	
IC207	8-752-035-53	IC CXA1315P	
IC208	8-759-049-49	IC UPC7893AHF	
IC209	8-759-171-05	IC UPC7805H	

<COIL>

L102	1-410-119-11	INDUCTOR	1MMH
L103	1-410-119-11	INDUCTOR	1MMH
L104	1-407-499-00	INDUCTOR	3.9MMH
L105	1-408-421-00	INDUCTOR	100UH
L106	1-408-421-00	INDUCTOR	100UH
L201	1-408-410-00	INDUCTOR	12UH
L202	1-408-410-00	INDUCTOR	12UH
L203	1-410-064-11	INDUCTOR	2.7MMH
L204	1-408-421-00	INDUCTOR	100UH
L205	1-408-421-00	INDUCTOR	100UH

<TRANSISTOR>

Q101	8-729-120-28	TRANSISTOR 2SC1623-L5L6
Q102	8-729-120-28	TRANSISTOR 2SC1623-L5L6
Q103	8-729-120-28	TRANSISTOR 2SC1623-L5L6
Q104	8-729-901-01	TRANSISTOR DTC144EK
Q106	8-729-901-01	TRANSISTOR DTC144EK
Q107	8-729-901-01	TRANSISTOR DTC144EK
Q108	8-729-901-01	TRANSISTOR DTC144EK
Q109	8-729-901-01	TRANSISTOR DTC144EK
Q110	8-729-901-01	TRANSISTOR DTC144EK
Q201	8-729-901-01	TRANSISTOR DTC144EK
Q202	8-729-901-01	TRANSISTOR DTC144EK
Q203	8-729-230-46	TRANSISTOR 2SA1162-YG
Q204	8-729-119-78	TRANSISTOR 2SC2785-HFE
Q205	8-729-119-78	TRANSISTOR 2SC2785-HFE
Q206	8-729-100-66	TRANSISTOR 2SC1623-L6
Q217	8-729-100-66	TRANSISTOR 2SC1623-L6

<RESISTOR>

JR1	1-216-295-00	METAL GLAZE	0	5%	1/10W
JR2	1-216-295-00	METAL GLAZE	0	5%	1/10W
JR3	1-216-295-00	METAL GLAZE	0	5%	1/10W
JR4	1-216-295-00	METAL GLAZE	0	5%	1/10W
JR5	1-216-295-00	METAL GLAZE	0	5%	1/10W
JR6	1-216-295-00	METAL GLAZE	0	5%	1/10W
R101	1-216-039-00	METAL GLAZE	390	5%	1/10W
R102	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R103	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R104	1-216-041-00	METAL GLAZE	470	5%	1/10W
R105	1-216-011-00	METAL GLAZE	27	5%	1/10W
R106	1-216-638-11	METAL CHIP	300	0.50%	1/10W
R107	1-216-644-11	METAL CHIP	510	0.50%	1/10W
R108	1-216-063-00	METAL GLAZE	3.9K	5%	1/10W
R109	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W
R110	1-216-047-00	METAL GLAZE	820	5%	1/10W
R111	1-216-041-00	METAL GLAZE	470	5%	1/10W
R112	1-216-051-00	METAL GLAZE	1.2K	5%	1/10W

A1

REF.NO.	PART NO.	DESCRIPTION				REMARK
R113	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R115	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R117	1-216-686-11	METAL CHIP	30K	0.50%	1/10W	
R118	1-216-686-11	METAL CHIP	30K	0.50%	1/10W	
R119	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R120	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R121	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R122	1-216-063-00	METAL GLAZE	3.9K	5%	1/10W	
R123	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R124	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R125	1-216-270-00	METAL GLAZE	1M	5%	1/8W	
R127	1-216-119-00	METAL GLAZE	820K	5%	1/10W	
R128	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R129	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R130	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R131	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R132	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R133	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R134	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R135	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R136	1-216-071-00	METAL GLAZE	8.2K	5%	1/10W	
R137	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R138	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R139	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R140	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R141	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W	
R142	1-216-063-00	METAL GLAZE	3.9K	5%	1/10W	
R143	1-216-640-11	METAL CHIP	360	0.50%	1/10W	
R144	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R145	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R146	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R147	1-216-689-11	METAL GLAZE	39K	5%	1/10W	
R148	1-216-689-11	METAL GLAZE	39K	5%	1/10W	
R149	1-216-063-00	METAL GLAZE	3.9K	5%	1/10W	
R150	1-216-640-11	METAL CHIP	360	0.50%	1/10W	
R151	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R152	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R153	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R154	1-216-689-11	METAL GLAZE	39K	5%	1/10W	
R155	1-216-689-11	METAL GLAZE	39K	5%	1/10W	
R156	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R157	1-216-085-00	METAL GLAZE	33K	5%	1/10W	
R158	1-216-085-00	METAL GLAZE	33K	5%	1/10W	
R159	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R160	1-216-085-00	METAL GLAZE	33K	5%	1/10W	
R161	1-216-085-00	METAL GLAZE	33K	5%	1/10W	
R162	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R163	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R164	1-216-234-00	METAL GLAZE	33K	5%	1/8W	
R165	1-216-085-00	METAL GLAZE	33K	5%	1/10W	
R166	1-216-085-00	METAL GLAZE	33K	5%	1/10W	
R167	1-216-085-00	METAL GLAZE	33K	5%	1/10W	
R168	1-216-011-00	METAL GLAZE	27	5%	1/10W	
R169	1-247-903-00	CARBON	1M	5%	1/4W	
R200	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R201	1-216-045-00	METAL GLAZE	680	5%	1/10W	
R202	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R203	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R204	1-216-045-00	METAL GLAZE	680	5%	1/10W	
R205	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R206	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R208	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R209	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R210	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R211	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R212	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R213	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W	
R214	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R215	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R216	1-216-099-00	METAL GLAZE	120K	5%	1/10W	
R217	1-216-075-00	METAL GLAZE	12K	5%	1/10W	
R218	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R219	1-216-063-00	METAL GLAZE	3.9K	5%	1/10W	
R220	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R221	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R222	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R223	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R224	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R225	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R226	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R227	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R228	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R229	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R230	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R231	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R234	1-216-349-00	METAL OXIDE	1	5%	1W	F
R235	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R236	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R237	1-216-349-00	METAL OXIDE	1	5%	1W	F
R238	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W	
R239	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R240	1-216-035-00	METAL GLAZE	270	5%	1/10W	
R241	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R242	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R243	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R244	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R245	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R246	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R247	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R250	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R265	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R273	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R275	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R276	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R277	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R278	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R279	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R280	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R281	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R282	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R283	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R284	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R287	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R288	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R289	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R290	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R291	1-249-429-11	CARBON	10K	5%	1/4W	

<VARIABLE RESISTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
RV201	1-241-630-11	RES, ADJ, CARBON 10K	
RV202	1-241-632-11	RES, ADJ, CARBON 47K	

<CRYSTAL>

REF.NO.	PART NO.	DESCRIPTION	REMARK
X101	1-579-282-21	VIBRATOR, CRYSTAL	
X102	1-579-281-11	VIBRATOR, CRYSTAL	

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

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*A-1316-144-A G BOARD, COMPLETE
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REF.NO.	PART NO.	DESCRIPTION				REMARK
	4-382-854-11	SCREW (M3X10), P, SW (+)				

<CAPACITOR>

REF.NO.	PART NO.	DESCRIPTION				REMARK
C601	1-161-830-00	CERAMIC	4700PF	10%	500V	
C602	1-130-317-00	FILM	0.068MF	5%	100V	
C603	1-124-634-11	ELECT	1MF	20%	250V	
C604	1-124-791-11	ELECT	1MF	20%	50V	
C605	1-164-143-11	CERAMIC	0.001MF	10%	1KV	
C606	1-124-563-11	ELECT	2200MF	20%	25V	
C607	1-124-563-11	ELECT	2200MF	20%	25V	
C608	1-124-810-11	ELECT	100MF	20%	200V	
C609	1-137-141-11	FILM	0.082MF	3%	600V	
C612	1-124-563-11	ELECT	2200MF	20%	25V	
C613	1-124-557-11	ELECT	1000MF	20%	25V	
C614	1-126-326-51	ELECT	10MF	20%	200V	
C616	1-124-557-11	ELECT	1000MF	20%	25V	
C617	1-164-143-11	CERAMIC	0.001MF	10%	1KV	
C618	1-136-853-11	FILM	0.56MF	5%	200V	
C619	1-164-735-11	CAP, CERAMIC	1500PF			
C620	1-136-721-21	FILM	1.5MF	10%	400V	
C621	1-164-143-11	CERAMIC	0.001MF	10%	1KV	
C622	1-136-853-11	FILM	0.56MF	5%	200V	
C623	1-137-087-21	FILM	0.068MF	3%	0	
C624	1-124-171-00	ELECT	100MF	20%	160V	
C625	1-124-360-00	ELECT	1000MF	20%	16V	
C626	1-124-472-11	ELECT	470MF	20%	6.3V	
C627	1-124-360-00	ELECT	1000MF	20%	16V	
C628	1-161-830-00	CERAMIC	4700PF	10%	500V	
C629	1-126-413-11	ELECT	3300MF	20%	35V	
C631	1-124-910-11	ELECT	47MF	20%	50V	
C632	1-124-903-11	ELECT	1MF	20%	50V	
C633	1-130-483-00	MYLAR	0.01MF	5%	50V	
C634	1-124-477-11	ELECT	47MF	20%	16V	
C635	1-124-798-11	ELECT	1MF	20%	160V	
C636	1-136-125-00	FILM	0.68MF	5%	400V	
C637	1-161-830-00	CERAMIC	0.0047MF		500V	
C643	1-124-935-11	ELECT	470MF	20%	100V	
C646	1-124-907-11	ELECT	10MF	20%	50V	
C647	1-124-618-11	ELECT	2200MF	20%	35V	
C648	1-124-618-11	ELECT	2200MF	20%	35V	
C660	1-164-085-11	CERAMIC	0.001MF	10%	50V	
C661	1-101-006-00	CERAMIC	0.047MF		50V	
C662	1-124-477-11	ELECT	47MF	20%	16V	
C663	1-126-105-11	ELECT	1000MF	20%	35V	
C664	1-126-413-11	ELECT	3300MF	20%	35V	
C665	1-129-726-00	FILM	0.1MF	10%	630V	
C670	1-164-085-11	CERAMIC	0.001MF	10%	50V	
C693	1-124-360-00	ELECT	1000MF	20%	16V	

<CONNECTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
CN1605*	1-564-507-11	PLUG, CONNECTOR 4P	
CN1611*	1-508-784-00	PIN, CONNECTOR (5MM PITCH) 1P	
CN1627*	1-564-512-11	PLUG, CONNECTOR 9P	
CN1628*	1-564-509-11	PLUG, CONNECTOR 6P	
CN1650*	1-564-506-11	PLUG, CONNECTOR 3P	
CN1651*	1-508-765-00	PIN, CONNECTOR (5MM PITCH) 3P	
CN1652*	1-564-511-11	PLUG, CONNECTOR 8P	
CN1653*	1-564-507-11	PLUG, CONNECTOR 4P	
CN1654*	1-564-508-11	PLUG, CONNECTOR 5P	
CN1655*	1-508-786-00	PIN, CONNECTOR (5MM PITCH) 2P	
CN1656*	1-508-786-00	PIN, CONNECTOR (5MM PITCH) 2P	

<DIODE>

REF.NO.	PART NO.	DESCRIPTION	REMARK
D602	8-719-979-58	DIODE EGP10D	
D603	8-719-500-67	DIODE D5KC40H	
D604	8-719-510-09	DIODE D10SC6M	
D605	8-719-988-31	DIODE D10SC6MR	
D607	8-719-025-81	DIODE S3V10SB	
D609	8-719-109-84	DIODE RD5.1ES-B1	
D610	8-719-979-58	DIODE EGP10D	
D611	8-719-979-58	DIODE EGP10D	
D613	8-719-303-57	DIODE RU2AM	
D614	8-719-979-58	DIODE EGP10D	
D615	8-719-975-76	DIODE SB140	
D616	8-719-025-81	DIODE S3V10SB	
D617	8-719-110-02	DIODE RD7.5ES-B1	
D618	8-719-911-19	DIODE 1SS119	
D619	8-719-975-76	DIODE SB140	
D620 ⚠	8-719-988-31	DIODE D10SC6MR	
D621	8-719-911-55	DIODE U05G	
D622	8-719-911-55	DIODE U05G	
D623	8-719-110-63	DIODE RD24ES-B3	
D624	8-719-109-89	DIODE RD5.6ES-B2	
D626	8-719-911-55	DIODE U05G	
D627	8-719-911-19	DIODE 1SS119	
D628	8-719-110-49	DIODE RD18ES-B2	
D629	8-719-911-19	DIODE 1SS119	
D630 ⚠	8-719-510-09	DIODE D10SC6M	
D631 ⚠	8-719-988-31	DIODE D10SC6MR	
D632	8-719-500-67	DIODE D5KC40H	
D634	8-719-911-19	DIODE 1SS119	
D636	8-719-109-85	DIODE RD5.1ES-B2	
D638	8-719-911-19	DIODE 1SS119	
D639	8-719-981-00	DIODE ERB81-004	
D640 ⚠	8-719-510-09	DIODE D10SC6M	
D641	8-719-110-22	DIODE RD11ES-B2	
D650	8-719-160-81	DIODE RD27F-B2	

<FERRITE BEAD>

REF.NO.	PART NO.	DESCRIPTION	REMARK
FB602	1-410-397-21	FERRITE BEAD INDUCTOR	
FB603	1-410-397-21	FERRITE BEAD INDUCTOR	
FB604	1-410-396-41	FERRITE BEAD INDUCTOR	
FB606	1-410-397-21	FERRITE BEAD INDUCTOR	
FB607	1-410-397-21	FERRITE BEAD INDUCTOR	
FB608	1-410-396-41	FERRITE BEAD INDUCTOR	
FB609	1-410-397-21	FERRITE BEAD INDUCTOR	
FB612	1-410-397-21	FERRITE BEAD INDUCTOR	
FB622	1-410-397-21	FERRITE BEAD INDUCTOR	
FB623	1-410-397-21	FERRITE BEAD INDUCTOR	
FB630	1-410-396-41	FERRITE BEAD INDUCTOR	
FB631	1-410-396-41	FERRITE BEAD INDUCTOR	

<IC>

REF.NO.	PART NO.	DESCRIPTION	REMARK
IC601 ⚠	8-749-921-89	IC SE115N	
IC606	8-759-506-79	IC IR3M02	

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The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

<COIL>

REF.NO.	PART NO.	DESCRIPTION		REMARK
L602	1-459-862-11	COIL, CHOKE 90UH		
L603	1-459-862-11	COIL, CHOKE 90UH		
L604	1-408-404-00	INDUCTOR	3.9UH	
L605	1-412-526-11	INDUCTOR	12UH	
L606	1-459-862-11	COIL, CHOKE 90UH		
L607	1-408-404-00	INDUCTOR	3.9UH	
L608	1-459-155-00	COIL (WITH CORE) 45UH		
L610	1-424-602-11	COIL, CHOKE 800UH		
L611	1-412-546-21	INDUCTOR	560UH	
L612	1-412-540-21	INDUCTOR	180UH	
L613	1-412-522-21	INDUCTOR	5.6UH	

<TRANSISTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
Q603	8-729-011-15	TRANSISTOR 2SC4582NP	
Q604	8-729-802-84	TRANSISTOR 2SC1755-D	
Q607	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q608	8-729-906-39	TRANSISTOR 2SC3271-P	
Q613	8-729-209-15	TRANSISTOR 2SD2012	
Q614	8-729-011-15	TRANSISTOR 2SC4582NP	
Q615	8-729-820-82	TRANSISTOR 2SA1208-S	
Q616	8-729-208-39	TRANSISTOR 2SA1306A-Y	
Q618	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q620	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q621	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q623	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q624	8-729-103-80	TRANSISTOR 2SA1261-K	
Q629	8-729-378-84	TRANSISTOR 2SD788-5	
Q630	8-729-255-12	TRANSISTOR 2SC2551-0	

<RESISTOR>

REF.NO.	PART NO.	DESCRIPTION				REMARK
R604	1-202-933-11	FUSIBLE	0.1	10%	1/2W	F
R605	1-249-428-11	CARBON	8.2K	5%	1/4W	
R606	1-214-919-00	CARBON	180K	5%	1/2W	
R609	1-249-438-11	CARBON	56K	5%	1/4W	F
R611	1-249-418-11	CARBON	1.2K	5%	1/4W	F
R612	1-202-883-11	SOLID	680K	20%	1/2W	
R613	1-216-386-11	METAL OXIDE	0.56	5%	3W	F
R616	1-214-742-00	METAL	3.6K	1%	1/4W	
R617	1-216-356-71	METAL OXIDE	3.9	5%	1W	F
R618	1-249-418-11	CARBON	1.2K	5%	1/4W	
R619	1-216-444-11	METAL OXIDE	82K	5%	1W	F
R625	1-216-386-11	METAL OXIDE	0.56	5%	3W	F
R626	1-216-356-71	METAL OXIDE	3.9	5%	1W	F
R627	1-202-883-11	SOLID	680K	20%	1/2W	
R628	1-249-410-11	CARBON	270	5%	1/4W	
R629	1-216-389-11	METAL OXIDE	1	5%	3W	F
R631	1-249-417-11	CARBON	1K	5%	1/4W	F
R632	1-214-913-00	METAL	100K	1%	1/2W	
R633	1-249-429-11	CARBON	10K	5%	1/4W	
R634	1-249-441-11	CARBON	100K	5%	1/4W	
R638	1-249-405-11	CARBON	100	5%	1/4W	F
R640	1-249-424-11	CARBON	3.9K	5%	1/4W	
R641	1-249-429-11	CARBON	10K	5%	1/4W	
R642	1-215-421-00	METAL	1K	1%	1/4W	
R643	1-260-123-11	CARBON	100K	5%	1/2W	
R644	1-249-415-11	CARBON	680	5%	1/4W	
R645	1-249-417-11	CARBON	1K	5%	1/4W	
R646 ⚠.	1-202-933-61	FUSIBLE	0.1	10%	1/2W	F
R647 ⚠.	1-202-933-61	FUSIBLE	0.1	10%	1/2W	F
R649	1-249-424-11	CARBON	3.9K	5%	1/4W	
R650	1-249-377-11	CARBON	0.47	5%	1/4W	F
R651	1-215-429-00	METAL	2.2K	1%	1/4W	
R652	1-215-472-00	METAL	130K	1%	1/4W	
R654	1-215-436-00	METAL	4.3K	1%	1/4W	
R655	1-249-426-11	CARBON	5.6K	5%	1/4W	
R656	1-215-454-00	METAL	24K	1%	1/4W	
R657	1-216-386-11	METAL OXIDE	0.56	5%	3W	F
R658	1-216-386-11	METAL OXIDE	0.56	5%	3W	F
R660	1-249-413-11	CARBON	470	5%	1/4W	
R664	1-205-909-11	WIREWOUND	3.3	5%	10W	
R666	1-249-377-11	CARBON	0.47	5%	1/4W	F
R669	1-249-377-11	CARBON	0.47	5%	1/4W	F
R671	1-249-405-11	CARBON	100	5%	1/4W	
R672	1-215-415-00	METAL	560	1%	1/4W	
R673	1-215-429-00	METAL	2.2K	1%	1/4W	
R674	1-249-433-11	CARBON	22K	5%	1/4W	
R675	1-249-377-11	CARBON	0.47	5%	1/4W	F
R676	1-249-428-11	CARBON	8.2K	5%	1/4W	
R677	1-249-421-11	CARBON	2.2K	5%	1/4W	
R678	1-249-433-11	CARBON	22K	5%	1/4W	
R679	1-215-457-00	METAL	33K	1%	1/4W	
R680	1-216-433-71	METAL OXIDE	1.2K	5%	1W	F
R681	1-216-341-11	WIREWOUND	0.22	10%	1/2W	
R683	1-215-429-00	METAL	2.2K	1%	1/4W	
R684	1-215-429-00	METAL	2.2K	1%	1/4W	
R686	1-249-377-11	CARBON	0.47	5%	1/4W	F
R687	1-249-417-11	CARBON	1K	5%	1/4W	F
R690	1-216-482-71	METAL OXIDE	1.8K	5%	3W	F
R691	1-249-421-11	CARBON	2.2K	5%	1/4W	
R692	1-215-436-00	METAL	4.3K	1%	1/4W	
R694	1-249-421-11	CARBON	2.2K	5%	1/4W	
R697	1-249-382-11	CARBON	1.2	5%	1/4W	F
R699	1-249-377-11	CARBON	0.47	5%	1/4W	F

<VARIABLE RESISTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
RV601	1-241-627-11	RES, ADJ, CARBON 1K	

<RELAY>

REF.NO.	PART NO.	DESCRIPTION	REMARK
RY601⚠	1-515-805-11	RELAY, POWER	

<TRANSFORMER>

REF.NO.	PART NO.	DESCRIPTION	REMARK
T601 ⚠.	1-423-422-11	TRANSFORMER, CONVERTER (PIT)	
T603 ⚠.	1-424-020-11	PRT	
T604 ⚠.	1-450-149-11	TRANSFORMER, HEATER	
T605 ⚠.	1-421-862-11	LFT	
T606 ⚠.	1-423-327-11	TRANSFORMER, CONVERTER	
T607 ⚠.	1-424-436-11	TRANSFORMER, LINE FILTER	
T608 ⚠.	1-423-325-11	TRANSFORMER, FERRITE (SBT)	

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*A-1331-206-A CR BOARD, COMPLETE
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<CAPACITOR>

REF.NO.	PART NO.	DESCRIPTION				REMARK
C701	1-162-115-00	CERAMIC	330PF	10%	2KV	
C702	1-123-948-00	ELECT	22MF	20%	250V	
C703	1-102-050-00	CERAMIC	0.01MF		500V	
C704	1-162-115-00	CERAMIC	330PF	10%	2KV	
C705	1-130-479-00	MYLAR	0.0047MF	5%	50V	
C706	1-101-006-00	CERAMIC	0.047MF		50V	

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

REF.NO.	PART NO.	DESCRIPTION				REMARK
C707	1-101-006-00	CERAMIC	0.047MF		50V	
C709	1-124-120-11	ELECT	220MF	20%	16V	
C710	1-124-120-11	ELECT	220MF	20%	16V	
C711	1-102-114-00	CERAMIC	470PF	10%	50V	
		<CONNECTOR>				
CR1	*1-508-784-00	PIN, CONNECTOR (5MM PITCH) 1P				
CR3	*1-508-765-00	PIN, CONNECTOR (5MM PITCH) 3P				
CR4	*1-564-511-11	PLUG, CONNECTOR 8P				
CR15	*1-564-508-11	PLUG, CONNECTOR 5P				
		<PICTURE TUBE SOCKET>				
CRT701⚠	1-251-026-11	SOCKET, PICTURE TUBE				
		<DIODE>				
D701	8-719-911-19	DIODE 1SS119				
D702	8-719-911-19	DIODE 1SS119				
D703	8-719-911-19	DIODE 1SS119				
D704	8-719-911-19	DIODE 1SS119				
D705	8-719-911-19	DIODE 1SS119				
D706	8-719-911-19	DIODE 1SS119				
D707	8-719-110-36	DIODE RD13ES-B2				
		<COIL>				
L701	1-408-429-00	INDUCTOR	470UH			
L702	1-408-159-00	COIL, SPOOK CHOKE	3.3UH			
L703	1-408-159-00	COIL, SPOOK CHOKE	3.3UH			
L704	1-408-413-00	INDUCTOR	22UH			
		<NEON LAMP>				
NL701	1-519-108-99	LAMP, NEON				
NL702	1-519-108-99	LAMP, NEON				
		<TRANSISTOR>				
Q701	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q702	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q703	8-729-119-80	TRANSISTOR 2SC2688-LK				
	4-373-933-01	SHEET (TRANSISTOR), BN; Q703				
	4-382-854-11	SCREW (M3X10), P, SW (+); Q703				
Q704	8-729-255-12	TRANSISTOR 2SC2551-O				
Q705	8-729-200-17	TRANSISTOR 2SA1091-O				
Q706	8-729-200-17	TRANSISTOR 2SA1091-O				
		<RESISTOR>				
R701	1-202-847-00	SOLID	560K	20%	1/2W	
R702	1-202-814-11	SOLID	33K	20%	1/2W	
R703	1-202-818-00	SOLID	1K	20%	1/2W	
R704	1-202-842-11	SOLID	220K	20%	1/2W	
R705	1-202-828-11	SOLID	6.8K	20%	1/2W	
R706	1-202-561-00	SOLID	330	20%	1/2W	
R707	1-216-510-11	METAL OXIDE	8.2K	5%	5W	F
R708	1-249-405-11	CARBON	100	5%	1/4W	F
R709	1-249-405-11	CARBON	100	5%	1/4W	F
R710	1-215-927-00	METAL OXIDE	47K	5%	3W	F
R711	1-249-405-11	CARBON	100	5%	1/4W	F
R712	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R714	1-249-401-11	CARBON	47	5%	1/4W	
R716	1-249-405-11	CARBON	100	5%	1/4W	

REF.NO.	PART NO.	DESCRIPTION				REMARK
R717	1-249-403-11	CARBON	68	5%	1/4W	
R718	1-249-412-11	CARBON	390	5%	1/4W	
R719	1-249-410-11	CARBON	270	5%	1/4W	
R720	1-249-405-11	CARBON	100	5%	1/4W	
R721	1-249-409-11	CARBON	220	5%	1/4W	
R722	1-215-423-00	METAL	1.2K	1%	1/4W	
R723	1-249-410-11	CARBON	270	5%	1/4W	
R724	1-215-429-00	METAL	2.2K	1%	1/4W	
		<SPARK GAP>				
SG701	1-519-422-11	GAP, SPARK				
SG702	1-519-422-11	GAP, SPARK				

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	*A-1331-208-A	CB BOARD, COMPLETE ******************				
	4-373-933-01	SHEET (TRANSISTOR), BN				
	4-382-854-11	SCREW (M3X10), P, SW (+)				
		<CAPACITOR>				
C761	1-162-115-00	CERAMIC	330PF	10%	2KV	
C762	1-123-948-00	ELECT	22MF	20%	250V	
C763	1-102-050-00	CERAMIC	0.01MF		500V	
C764	1-162-115-00	CERAMIC	330PF	10%	2KV	
C765	1-130-479-00	MYLAR	0.0047MF	5%	50V	
C766	1-101-006-00	CERAMIC	0.047MF		50V	
C767	1-101-006-00	CERAMIC	0.047MF		50V	
C769	1-124-120-11	ELECT	220MF	20%	16V	
C770	1-124-120-11	ELECT	220MF	20%	16V	
C771	1-102-114-00	CERAMIC	470PF	10%	50V	
		<CONNECTOR>				
CB1	*1-508-784-00	PIN, CONNECTOR (5MM PITCH) 1P				
CB3	*1-508-765-00	PIN, CONNECTOR (5MM PITCH) 3P				
CB4	*1-564-511-11	PLUG, CONNECTOR 8P				
CB5	*1-564-511-11	PLUG, CONNECTOR 8P				
CB17	*1-564-508-11	PLUG, CONNECTOR 5P				
		<PICTURE TUBE SOCKET>				
CRT761⚠	1-251-026-11	SOCKET, PICTURE TUBE				
		<DIODE>				
D761	8-719-911-19	DIODE 1SS119				
D762	8-719-911-19	DIODE 1SS119				
D763	8-719-911-19	DIODE 1SS119				
D764	8-719-911-19	DIODE 1SS119				
D765	8-719-911-19	DIODE 1SS119				
D766	8-719-911-19	DIODE 1SS119				
D768	8-719-911-19	DIODE 1SS119				
D769	8-719-109-81	DIODE RD4.7ES-B2				
		<COIL>				
L761	1-408-429-00	INDUCTOR	470UH			
L762	1-408-159-00	COIL, SPOOK CHOKE	3.3UH			
L763	1-408-159-00	COIL, SPOOK CHOKE	3.3UH			
L764	1-408-413-00	INDUCTOR	22UH			

CB **CG**

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

<NEON LAMP>

REF.NO.	PART NO.	DESCRIPTION	REMARK
NL761	1-519-108-99	LAMP, NEON	
NL762	1-519-108-99	LAMP, NEON	

<TRANSISTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
Q761	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q762	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q763	8-729-119-80	TRANSISTOR 2SC2688-LK	
Q764	8-729-255-12	TRANSISTOR 2SC2551-0	
Q765	8-729-200-17	TRANSISTOR 2SA1091-0	
Q766	8-729-200-17	TRANSISTOR 2SA1091-0	

<RESISTOR>

REF.NO.	PART NO.	DESCRIPTION				REMARK
R761	1-202-847-00	SOLID	560K	20%	1/2W	
R762	1-202-814-11	SOLID	33K	20%	1/2W	
R763	1-202-818-00	SOLID	1K	20%	1/2W	
R764	1-202-842-11	SOLID	220K	20%	1/2W	
R765	1-202-828-11	SOLID	6.8K	20%	1/2W	
R766	1-202-561-00	SOLID	330	20%	1/2W	
R767	1-216-510-11	METAL OXIDE	8.2K	5%	5W	F
R768	1-249-405-11	CARBON	100	5%	1/4W	F
R769	1-249-405-11	CARBON	100	5%	1/4W	F
R770	1-215-927-00	METAL OXIDE	47K	5%	3W	F
R771	1-249-405-11	CARBON	100	5%	1/4W	F
R772	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R773	1-249-413-11	CARBON	470	5%	1/4W	
R774	1-249-401-11	CARBON	47	5%	1/4W	
R776	1-249-405-11	CARBON	100	5%	1/4W	
R777	1-249-403-11	CARBON	68	5%	1/4W	
R778	1-249-412-11	CARBON	390	5%	1/4W	
R779	1-249-415-11	CARBON	680	5%	1/4W	
R780	1-249-405-11	CARBON	100	5%	1/4W	
R781	1-249-409-11	CARBON	220	5%	1/4W	
R782	1-215-423-00	METAL	1.2K	1%	1/4W	
R783	1-215-433-00	METAL	3.3K	1%	1/4W	
R784	1-215-429-00	METAL	2.2K	1%	1/4W	
R785	1-215-418-00	METAL	750	1%	1/4W	

<SPARK GAP>

REF.NO.	PART NO.	DESCRIPTION	REMARK
SG761	1-519-422-11	GAP, SPARK	
SG762	1-519-422-11	GAP, SPARK	

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REF.NO.	PART NO.	DESCRIPTION	REMARK
	*A-1331-254-A	CG BOARD, COMPLETE ******************	
	4-373-933-01	SHEET (TRANSISTOR), BN	
	4-382-854-11	SCREW (M3X10), P, SW (+)	

<CAPACITOR>

REF.NO.	PART NO.	DESCRIPTION				REMARK
C731	1-162-115-00	CERAMIC	330PF	10%	2KV	
C732	1-123-948-00	ELECT	22MF	20%	250V	
C733	1-102-050-00	CERAMIC	0.01MF		500V	
C734	1-162-115-00	CERAMIC	330PF	10%	2KV	
C735	1-130-479-00	MYLAR	0.0047MF	5%	50V	
C736	1-101-006-00	CERAMIC	0.047MF		50V	
C737	1-101-006-00	CERAMIC	0.047MF		50V	
C739	1-124-120-11	ELECT	220MF	20%	16V	
C740	1-124-120-11	ELECT	220MF	20%	16V	
C741	1-102-114-00	CERAMIC	470PF	10%	50V	

<CONNECTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
CG1	*1-508-784-00	PIN, CONNECTOR (5MM PITCH) 1P	
CG3	*1-508-765-00	PIN, CONNECTOR (5MM PITCH) 3P	
CG16	*1-564-508-11	PLUG, CONNECTOR 5P	

<PICTURE TUBE SOCKET>

REF.NO.	PART NO.	DESCRIPTION	REMARK
CRT731⚠	1-251-026-11	SOCKET, PICTURE TUBE	

<DIODE>

REF.NO.	PART NO.	DESCRIPTION	REMARK
D731	8-719-911-19	DIODE 1SS119	
D732	8-719-911-19	DIODE 1SS119	
D733	8-719-911-19	DIODE 1SS119	
D734	8-719-911-19	DIODE 1SS119	
D735	8-719-911-19	DIODE 1SS119	
D736	8-719-911-19	DIODE 1SS119	
D737	8-719-911-19	DIODE 1SS119	

<COIL>

REF.NO.	PART NO.	DESCRIPTION		REMARK
L731	1-408-429-00	INDUCTOR	470UH	
L732	1-408-159-00	COIL, SPOOK CHOKE	3.3UH	
L733	1-408-159-00	COIL, SPOOK CHOKE	3.3UH	
L734	1-408-413-00	INDUCTOR	22UH	

<NEON LAMP>

REF.NO.	PART NO.	DESCRIPTION	REMARK
NL731	1-519-108-99	LAMP, NEON	
NL732	1-519-108-99	LAMP, NEON	

<TRANSISTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
Q731	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q732	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q733	8-729-119-80	TRANSISTOR 2SC2688-LK	
Q734	8-729-255-12	TRANSISTOR 2SC2551-0	
Q735	8-729-200-17	TRANSISTOR 2SA1091-0	
Q736	8-729-200-17	TRANSISTOR 2SA1091-0	

<RESISTOR>

REF.NO.	PART NO.	DESCRIPTION				REMARK
R731	1-202-847-00	SOLID	560K	20%	1/2W	
R732	1-202-814-11	SOLID	33K	20%	1/2W	
R733	1-202-818-00	SOLID	1K	20%	1/2W	
R734	1-202-842-11	SOLID	220K	20%	1/2W	
R735	1-202-828-11	SOLID	6.8K	20%	1/2W	
R736	1-202-561-00	SOLID	330	20%	1/2W	
R737	1-216-510-11	METAL OXIDE	8.2K	5%	5W	F
R738	1-249-405-11	CARBON	100	5%	1/4W	F
R739	1-249-405-11	CARBON	100	5%	1/4W	F
R740	1-215-927-00	METAL OXIDE	47K	5%	3W	F
R741	1-249-405-11	CARBON	100	5%	1/4W	F
R742	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R744	1-249-401-11	CARBON	47	5%	1/4W	
R745	1-215-451-00	METAL	18K	1%	1/4W	
R746	1-249-405-11	CARBON	100	5%	1/4W	
R747	1-249-403-11	CARBON	68	5%	1/4W	
R748	1-249-412-11	CARBON	390	5%	1/4W	
R749	1-249-410-11	CARBON	270	5%	1/4W	
R750	1-249-405-11	CARBON	100	5%	1/4W	
R751	1-249-409-11	CARBON	220	5%	1/4W	

CG **D**

REF.NO.	PART NO.	DESCRIPTION				REMARK
R752	1-215-423-00	METAL	1.2K	1%	1/4W	
R754	1-215-429-00	METAL	2.2K	1%	1/4W	

<SPARK GAP>

SG731	1-519-422-11	GAP, SPARK
SG732	1-519-422-11	GAP, SPARK

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*A-1341-632-A D BOARD, COMPLETE
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4-382-854-11	SCREW (M3X10), P, SW (+)
*4-395-527-01	HOLDER (B), TR

<CAPACITOR>

C901	1-126-320-11	ELECT	10MF	20%	16V
C902	1-124-477-11	ELECT	47MF	20%	16V
C903	1-130-471-00	MYLAR	0.001MF	5%	50V
C904	1-130-471-00	MYLAR	0.001MF	5%	50V
C905	1-124-477-11	ELECT	47MF	20%	16V
C906	1-126-233-11	ELECT	22MF	20%	50V
C907	1-126-101-11	ELECT	100MF	20%	16V
C908	1-124-907-11	ELECT	10MF	20%	50V
C910	1-130-483-00	MYLAR	0.01MF	5%	50V
C911	1-131-341-00	TANTALUM	0.1MF	20%	16V
C912	1-124-903-11	ELECT	1MF	20%	50V
C913	1-126-803-11	ELECT	47MF	20%	16V
C914	1-126-233-11	ELECT	22MF	20%	50V
C915	1-124-927-11	ELECT	4.7MF	20%	50V
C916	1-102-074-00	CERAMIC	0.001MF	10%	50V
C917	1-130-471-00	MYLAR	0.001MF	5%	50V
C918	1-102-963-00	CERAMIC	33PF	5%	50V
C919	1-102-963-00	CERAMIC	33PF	5%	50V
C920	1-102-963-00	CERAMIC	33PF	5%	50V
C921	1-102-963-00	CERAMIC	33PF	5%	50V
C922	1-102-963-00	CERAMIC	33PF	5%	50V
C923	1-102-963-00	CERAMIC	33PF	5%	50V
C931	1-102-973-00	CERAMIC	100PF	5%	50V
C932	1-124-903-11	ELECT	1MF	20%	50V
C933	1-124-234-00	ELECT	22MF	20%	16V
C934	1-126-233-11	ELECT	22MF	20%	25V
C935	1-126-233-11	ELECT	22MF	20%	25V
C936	1-126-233-11	ELECT	22MF	20%	25V
C937	1-126-233-11	ELECT	22MF	20%	25V
C938	1-126-233-11	ELECT	22MF	20%	25V
C939	1-126-233-11	ELECT	22MF	20%	25V
C940	1-126-233-11	ELECT	22MF	20%	25V
C1701	1-124-907-11	ELECT	10MF	20%	50V
C1702	1-124-907-11	ELECT	10MF	20%	50V
C1703	1-124-907-11	ELECT	10MF	20%	50V
C1704	1-123-875-11	ELECT	10MF	20%	50V
C1705	1-102-963-00	CERAMIC	33PF	5%	50V
C1706	1-102-963-00	CERAMIC	33PF	5%	50V
C1707	1-102-963-00	CERAMIC	33PF	5%	50V
C1708	1-102-963-00	CERAMIC	33PF	5%	50V
C1709	1-102-963-00	CERAMIC	33PF	5%	50V
C1710	1-102-963-00	CERAMIC	33PF	5%	50V
C1711	1-126-233-11	ELECT	22MF	20%	50V
C1712	1-126-233-11	ELECT	22MF	20%	25V
C1713	1-102-074-00	CERAMIC	0.001MF	10%	50V
C1714	1-124-478-11	ELECT	100MF	20%	25V
C1715	1-124-478-11	ELECT	100MF	20%	25V

REF.NO.	PART NO.	DESCRIPTION				REMARK
C1716	1-126-803-11	ELECT	47MF	20%	25V	
C1717	1-126-803-11	ELECT	47MF	20%	25V	
C1718	1-102-074-00	CERAMIC	0.001MF	10%	50V	
C1719	1-124-234-00	ELECT	22MF	20%	16V	
C1720	1-130-491-00	MYLAR	0.047MF	5%	50V	
C1721	1-130-491-00	MYLAR	0.047MF	5%	50V	
C1722	1-130-491-00	MYLAR	0.047MF	5%	50V	
C1724	1-126-233-11	ELECT	22MF	20%	25V	
C1725	1-102-963-00	CERAMIC	33PF	5%	50V	
C1726	1-124-122-11	ELECT	100MF	20%	35V	
C1727	1-102-963-00	CERAMIC	33PF	5%	50V	
C1728	1-102-963-00	CERAMIC	33PF	5%	50V	
C1729	1-106-367-00	MYLAR	0.01MF	10%	200V	
C1730	1-102-963-00	CERAMIC	33PF	5%	50V	
C1731	1-124-122-11	ELECT	100MF	20%	35V	
C1732	1-106-367-00	MYLAR	0.01MF	10%	200V	
C1733	1-102-963-00	CERAMIC	33PF	5%	50V	
C1734	1-102-963-00	CERAMIC	33PF	5%	50V	
C1735	1-124-122-11	ELECT	100MF	20%	35V	
C1736	1-106-367-00	MYLAR	0.01MF	10%	200V	
C1737	1-124-937-11	ELECT	10MF	20%	16V	
C1738	1-124-122-11	ELECT	100MF	20%	35V	
C1739	1-136-153-00	FILM	0.01MF	5%	50V	
C1740	1-124-122-11	ELECT	100MF	20%	35V	
C1741	1-124-122-11	ELECT	100MF	20%	35V	
C1742	1-126-104-11	ELECT	470MF	20%	35V	
C1744	1-124-478-11	ELECT	100MF	20%	25V	
C1745	1-126-375-11	ELECT	100MF	20%	25V	
C1763	1-126-096-11	ELECT	10MF	20%	25V	
C1764	1-124-477-11	ELECT	47MF	20%	16V	
C1765	1-124-477-11	ELECT	47MF	20%	16V	
C1766	1-126-101-11	ELECT	100MF	20%	16V	
C1769	1-126-157-11	ELECT	10MF	20%	16V	
C1770	1-130-495-00	MYLAR	0.1MF	5%	50V	
C1771	1-126-096-11	ELECT	10MF	20%	25V	
C1772	1-126-096-11	ELECT	10MF	20%	25V	
C1861	1-102-074-00	CERAMIC	0.001MF	10%	50V	

<CONNECTOR>

D1	*1-564-510-11	PLUG, CONNECTOR 7P
D2	*1-564-511-11	PLUG, CONNECTOR 8P
D3	*1-564-512-11	PLUG, CONNECTOR 9P
D4	*1-564-508-11	PLUG, CONNECTOR 5P
D5	*1-564-511-11	PLUG, CONNECTOR 8P
D6	1-691-169-11	PIN, CONNECTOR 12P
D7	*1-564-507-11	PLUG, CONNECTOR 4P
D8	*1-564-506-11	PLUG, CONNECTOR 3P
D9	*1-564-507-11	PLUG, CONNECTOR 4P
D14	*1-564-513-11	PLUG, CONNECTOR 10P

<DIODE>

D901	8-719-911-19	DIODE 1SS119
D902	8-719-911-19	DIODE 1SS119
D1701	8-719-900-95	DIODE V09G
D1702	8-719-911-19	DIODE 1SS119
D1703	8-719-900-95	DIODE V09G
D1704	8-719-900-95	DIODE V09G
D1705	8-719-900-95	DIODE V09G
D1706	8-719-900-95	DIODE V09G
D1707	8-719-911-19	DIODE 1SS119
D1708	8-719-911-19	DIODE 1SS119
D1709	8-719-911-19	DIODE 1SS119

D

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

REF.NO.	PART NO.	DESCRIPTION	REMARK
D1710	8-719-911-19	DIODE 1SS119	
D1711	8-719-911-19	DIODE 1SS119	
D1712	8-719-911-19	DIODE 1SS119	
D1713	8-719-911-19	DIODE 1SS119	
D1714	8-719-911-19	DIODE 1SS119	
D1715	8-719-911-19	DIODE 1SS119	
D1716	8-719-911-19	DIODE 1SS119	
D1717	8-719-911-19	DIODE 1SS119	
D1718	8-719-911-19	DIODE 1SS119	
D1720	8-719-109-50	DIODE RD2.0ES-B1	
D1721	8-719-109-50	DIODE RD2.0ES-B1	
D1722	8-719-109-50	DIODE RD2.0ES-B1	
D1723	8-719-109-50	DIODE RD2.0ES-B1	

<FUSE>

REF.NO.	PART NO.	DESCRIPTION	REMARK
F901 ⚠.	1-532-237-11	FUSE, TIME-LAG (BET) 3.15A/250V	
	1-533-223-11	CLIP, FUSE; F901	
F902 ⚠.	1-532-237-11	FUSE, TIME-LAG (BET) 3.15A/250V	
	1-533-223-11	CLIP, FUSE; F902	

<IC>

REF.NO.	PART NO.	DESCRIPTION	REMARK
IC901	8-759-145-58	IC UPC4558C	
IC902	8-752-033-68	IC CXA1268P	
IC903	8-759-701-56	IC NJM78M05FA	
IC904	8-759-701-65	IC NJM79M05FA	
IC905	8-759-701-89	IC NJM7915FA	
IC906	8-759-148-84	IC UPC2415HF	
IC907	8-759-140-53	IC UPD4053BC	
IC908	8-759-145-58	IC UPC4558C	
IC910	8-759-054-40	IC PA0036	
IC1701	8-759-602-19	IC M5220L	
IC1702	8-759-602-19	IC M5220L	
IC1703	8-759-602-19	IC M5220L	
IC1704	8-749-923-16	IC STK4278-L	
IC1705	8-749-923-16	IC STK4278-L	
IC1706	8-759-113-13	IC UPC1498H	
IC1707	8-759-113-13	IC UPC1498H	
IC1708	8-759-113-13	IC UPC1498H	
IC1709	8-759-145-58	IC UPC4558C	
IC1710	8-759-145-58	IC UPC4558C	
IC1714	8-759-145-58	IC UPC4558C	
IC1715	8-759-145-58	IC UPC4558C	
IC1718	8-759-145-58	IC UPC4558C	

<COIL>

REF.NO.	PART NO.	DESCRIPTION	REMARK
L901	1-459-313-00	COIL WITH CORE (HWC)	
L902	1-459-313-00	COIL WITH CORE (HWC)	
L903	1-459-313-00	COIL WITH CORE (HWC)	
L904	1-459-313-00	COIL WITH CORE (HWC)	

<NEON LAMP>

REF.NO.	PART NO.	DESCRIPTION	REMARK
NL1701	1-519-108-99	LAMP, NEON	
NL1702	1-519-108-99	LAMP, NEON	
NL1703	1-519-108-99	LAMP, NEON	

<TRANSISTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
Q902	8-729-900-89	TRANSISTOR DTC144ES	
Q906	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q907	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q908	8-729-900-89	TRANSISTOR DTC144ES	
Q909	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q910	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q911	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q912	8-729-119-76	TRANSISTOR 2SA1175-HFE	

<RESISTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
R901	1-215-463-00	METAL 56K 1% 1/4W	
R902	1-215-463-00	METAL 56K 1% 1/4W	
R903	1-215-449-00	METAL 15K 1% 1/4W	
R904	1-215-455-00	METAL 27K 1% 1/4W	
R905	1-215-449-00	METAL 15K 1% 1/4W	
R906	1-215-469-00	METAL 100K 1% 1/4W	
R907	1-215-469-00	METAL 100K 1% 1/4W	
R908	1-215-469-00	METAL 100K 1% 1/4W	
R909	1-215-473-00	METAL 150K 1% 1/4W	
R910	1-215-437-00	METAL 4.7K 1% 1/4W	
R911	1-215-453-00	METAL 22K 1% 1/4W	
R912	1-215-453-00	METAL 22K 1% 1/4W	
R913	1-215-437-00	METAL 4.7K 1% 1/4W	
R914	1-215-453-00	METAL 22K 1% 1/4W	
R915	1-215-413-00	METAL 470 1% 1/4W	
R916	1-215-453-00	METAL 22K 1% 1/4W	
R917	1-215-453-00	METAL 22K 1% 1/4W	
R919	1-215-399-00	METAL 120 1% 1/4W	
R920	1-215-399-00	METAL 120 1% 1/4W	
R921	1-215-399-00	METAL 120 1% 1/4W	
R922	1-215-399-00	METAL 120 1% 1/4W	
R923	1-215-451-00	METAL 18K 1% 1/4W	
R924	1-215-433-00	METAL 3.3K 1% 1/4W	
R925	1-215-433-00	METAL 3.3K 1% 1/4W	
R926	1-215-463-00	METAL 56K 1% 1/4W	
R927	1-215-463-00	METAL 56K 1% 1/4W	
R928	1-215-461-00	METAL 47K 1% 1/4W	
R929	1-215-433-00	METAL 3.3K 1% 1/4W	
R930	1-215-433-00	METAL 3.3K 1% 1/4W	
R931	1-215-433-00	METAL 3.3K 1% 1/4W	
R932	1-215-433-00	METAL 3.3K 1% 1/4W	
R933	1-215-433-00	METAL 3.3K 1% 1/4W	
R934	1-215-433-00	METAL 3.3K 1% 1/4W	
R935	1-215-439-00	METAL 5.6K 1% 1/4W	
R936	1-215-439-00	METAL 5.6K 1% 1/4W	
R937	1-215-439-00	METAL 5.6K 1% 1/4W	
R938	1-215-417-00	METAL 680 1% 1/4W	
R939	1-215-433-00	METAL 3.3K 1% 1/4W	
R940	1-215-437-00	METAL 4.7K 1% 1/4W	
R941	1-215-441-00	METAL 6.8K 1% 1/4W	
R942	1-215-451-00	METAL 18K 1% 1/4W	
R943	1-215-441-00	METAL 6.8K 1% 1/4W	
R944	1-215-445-00	METAL 10K 1% 1/4W	
R945	1-215-445-00	METAL 10K 1% 1/4W	
R946	1-215-445-00	METAL 10K 1% 1/4W	
R947	1-215-439-00	METAL 5.6K 1% 1/4W	
R948	1-215-447-00	METAL 12K 1% 1/4W	
R949	1-215-439-00	METAL 5.6K 1% 1/4W	
R950	1-215-429-00	METAL 2.2K 1% 1/4W	
R951	1-215-429-00	METAL 2.2K 1% 1/4W	
R952	1-215-429-00	METAL 2.2K 1% 1/4W	
R953	1-215-439-00	METAL 5.6K 1% 1/4W	
R954	1-215-439-00	METAL 5.6K 1% 1/4W	
R955	1-215-435-00	METAL 3.9K 1% 1/4W	
R956	1-215-437-00	METAL 4.7K 1% 1/4W	
R957	1-215-441-00	METAL 6.8K 1% 1/4W	

REF.NO.	PART NO.	DESCRIPTION				REMARK
R958	1-215-437-00	METAL	4.7K	1%	1/4W	
R959	1-215-439-00	METAL	5.6K	1%	1/4W	
R960	1-215-439-00	METAL	5.6K	1%	1/4W	
R961	1-215-439-00	METAL	5.6K	1%	1/4W	
R962	1-215-441-00	METAL	6.8K	1%	1/4W	
R963	1-215-441-00	METAL	6.8K	1%	1/4W	
R964	1-215-441-00	METAL	6.8K	1%	1/4W	
R965	1-215-909-11	METAL OXIDE	47	5%	3W	F
R966	1-215-469-00	METAL	100K	1%	1/4W	
R967	1-215-421-00	METAL	1K	1%	1/4W	
R968	1-215-437-00	METAL	4.7K	1%	1/4W	
R969	1-249-421-11	CARBON	2.2K	5%	1/4W	
R970	1-215-909-11	METAL OXIDE	47	5%	3W	F
R971	1-249-421-11	CARBON	2.2K	5%	1/4W	
R972	1-249-431-11	CARBON	15K	5%	1/4W	
R973	1-249-431-11	CARBON	15K	5%	1/4W	
R974	1-215-399-00	METAL	120	1%	1/4W	
R975	1-215-399-00	METAL	120	1%	1/4W	
R976	1-215-399-00	METAL	120	1%	1/4W	
R977	1-215-399-00	METAL	120	1%	1/4W	
R978	1-215-399-00	METAL	120	1%	1/4W	
R979	1-215-399-00	METAL	120	1%	1/4W	
R980	1-215-399-00	METAL	120	1%	1/4W	
R981	1-215-399-00	METAL	120	1%	1/4W	
R982	1-249-431-11	CARBON	15K	5%	1/4W	
R983	1-249-431-11	CARBON	15K	5%	1/4W	
R984	1-214-804-11	METAL	3.3	1%	1/2W	
R985	1-214-804-11	METAL	3.3	1%	1/2W	
R986	1-214-804-11	METAL	3.3	1%	1/2W	
R987	1-215-421-00	METAL	1K	1%	1/4W	
R988	1-215-421-00	METAL	1K	1%	1/4W	
R989	1-215-421-00	METAL	1K	1%	1/4W	
R990	1-215-421-00	METAL	1K	1%	1/4W	
R991	1-215-421-00	METAL	1K	1%	1/4W	
R992	1-215-421-00	METAL	1K	1%	1/4W	
R993	1-249-429-11	CARBON	10K	5%	1/4W	
R994	1-249-429-11	CARBON	10K	5%	1/4W	
R995	1-215-457-00	METAL	33K	1%	1/4W	
R996	1-215-473-00	METAL	150K	1%	1/4W	
R997	1-215-463-00	METAL	56K	1%	1/4W	
R998	1-215-409-00	METAL	330	1%	1/4W	
R999	1-215-455-00	METAL	27K	1%	1/4W	
R1701	1-249-411-11	CARBON	330	5%	1/4W	
R1702	1-249-427-11	CARBON	6.8K	5%	1/4W	
R1703	1-249-427-11	CARBON	6.8K	5%	1/4W	
R1704	1-249-411-11	CARBON	330	5%	1/4W	
R1705	1-249-411-11	CARBON	330	5%	1/4W	
R1706	1-249-427-11	CARBON	6.8K	5%	1/4W	
R1707	1-249-411-11	CARBON	330	5%	1/4W	
R1708	1-249-427-11	CARBON	6.8K	5%	1/4W	
R1709	1-249-427-11	CARBON	6.8K	5%	1/4W	
R1710	1-249-411-11	CARBON	330	5%	1/4W	
R1711	1-249-411-11	CARBON	330	5%	1/4W	
R1712	1-249-427-11	CARBON	6.8K	5%	1/4W	
R1713	1-215-886-11	METAL OXIDE	100	5%	2W	F
R1714	1-249-411-11	CARBON	330	5%	1/4W	
R1715	1-249-411-11	CARBON	330	5%	1/4W	
R1716	1-215-886-11	METAL OXIDE	100	5%	2W	F
R1717	1-249-411-11	CARBON	330	5%	1/4W	
R1718	1-249-417-11	CARBON	1K	5%	1/4W	
R1719	1-214-792-00	METAL	1	1%	1/2W	
R1720	1-249-411-11	CARBON	330	5%	1/4W	
R1721	1-249-417-11	CARBON	1K	5%	1/4W	
R1722	1-249-411-11	CARBON	330	5%	1/4W	
R1723	1-249-417-11	CARBON	1K	5%	1/4W	
R1724	1-215-886-11	METAL OXIDE	100	5%	2W	F
R1725	1-215-886-11	METAL OXIDE	100	5%	2W	F
R1726	1-215-886-11	METAL OXIDE	100	5%	2W	F
R1727	1-214-792-00	METAL	1	1%	1/2W	
R1728	1-214-792-00	METAL	1	1%	1/2W	
R1729	1-214-792-00	METAL	1	1%	1/2W	
R1730	1-249-405-11	CARBON	100	5%	1/4W	
R1731	1-249-417-11	CARBON	1K	5%	1/4W	
R1732	1-249-405-11	CARBON	100	5%	1/4W	
R1733	1-249-405-11	CARBON	100	5%	1/4W	
R1734	1-249-405-11	CARBON	100	5%	1/4W	
R1735	1-249-405-11	CARBON	100	5%	1/4W	
R1736	1-249-423-11	CARBON	3.3K	5%	1/4W	
R1737	1-249-423-11	CARBON	3.3K	5%	1/4W	
R1738	1-249-423-11	CARBON	3.3K	5%	1/4W	
R1739	1-249-423-11	CARBON	3.3K	5%	1/4W	
R1740	1-249-417-11	CARBON	1K	5%	1/4W	
R1741	1-249-423-11	CARBON	3.3K	5%	1/4W	
R1742	1-249-423-11	CARBON	3.3K	5%	1/4W	
R1743	1-249-417-11	CARBON	1K	5%	1/4W	
R1744	1-249-411-11	CARBON	330	5%	1/4W	
R1745	1-249-405-11	CARBON	100	5%	1/4W	
R1746	1-214-792-00	METAL	1	1%	1/2W	
R1747	1-215-886-11	METAL OXIDE	100	5%	2W	F
R1748	1-215-421-00	METAL	1K	1%	1/4W	
R1749	1-215-421-00	METAL	1K	1%	1/4W	
R1750	1-215-421-00	METAL	1K	1%	1/4W	
R1751	1-215-421-00	METAL	1K	1%	1/4W	
R1752	1-215-421-00	METAL	1K	1%	1/4W	
R1753	1-215-421-00	METAL	1K	1%	1/4W	
R1754	1-214-792-00	METAL	1	1%	1/2W	
R1755	1-215-469-00	METAL	100K	1%	1/4W	
R1756	1-215-437-00	METAL	4.7K	1%	1/4W	
R1757	1-215-437-00	METAL	4.7K	1%	1/4W	
R1758	1-215-437-00	METAL	4.7K	1%	1/4W	
R1759	1-249-405-11	CARBON	100	5%	1/4W	
R1760	1-249-427-11	CARBON	6.8K	5%	1/4W	
R1761	1-249-419-11	CARBON	1.5K	5%	1/4W	
R1762	1-215-445-00	METAL	10K	1%	1/4W	
R1763	1-249-427-11	CARBON	6.8K	5%	1/4W	
R1764	1-249-419-11	CARBON	1.5K	5%	1/4W	
R1765	1-249-419-11	CARBON	1.5K	5%	1/4W	
R1766	1-249-427-11	CARBON	6.8K	5%	1/4W	
R1767	1-249-427-11	CARBON	6.8K	5%	1/4W	
R1768	1-249-439-11	CARBON	68K	5%	1/4W	
R1769	1-215-445-00	METAL	10K	1%	1/4W	
R1770	1-249-405-11	CARBON	100	5%	1/4W	
R1771	1-249-405-11	CARBON	100	5%	1/4W	
R1772	1-215-429-00	METAL	2.2K	1%	1/4W	
R1773	1-215-429-00	METAL	2.2K	1%	1/4W	
R1774	1-215-421-00	METAL	1K	1%	1/4W	
R1775	1-249-429-11	CARBON	10K	5%	1/4W	
R1776	1-215-421-00	METAL	1K	1%	1/4W	
R1777	1-249-423-11	CARBON	3.3K	5%	1/4W	
R1778	1-215-421-00	METAL	1K	1%	1/4W	
R1779	1-215-898-11	METAL OXIDE	10K	5%	2W	F
R1780	1-214-804-11	METAL	3.3	1%	1/2W	
R1781	1-214-804-11	METAL	3.3	1%	1/2W	
R1782	1-215-898-11	METAL OXIDE	10K	5%	2W	F
R1783	1-214-804-11	METAL	3.3	1%	1/2W	
R1784	1-214-804-11	METAL	3.3	1%	1/2W	
R1785	1-215-898-11	METAL OXIDE	10K	5%	2W	F

REF.NO.	PART NO.	DESCRIPTION				REMARK
R1786	1-214-804-11	METAL	3.3	1%	1/2W	
R1787	1-214-804-11	METAL	3.3	1%	1/2W	
R1788	1-249-433-11	CARBON	22K	5%	1/4W	
R1789	1-249-441-11	CARBON	100K	5%	1/4W	
R1790	1-249-433-11	CARBON	22K	5%	1/4W	
R1791	1-249-429-11	CARBON	10K	5%	1/4W	
R1792	1-215-445-00	METAL	10K	1%	1/4W	
R1793	1-249-405-11	CARBON	100	5%	1/4W	
R1794	1-215-429-00	METAL	2.2K	1%	1/4W	
R1795	1-249-433-11	CARBON	22K	5%	1/4W	
R1796	1-249-405-11	CARBON	100	5%	1/4W	
R1797	1-249-429-11	CARBON	10K	5%	1/4W	
R1798	1-249-423-11	CARBON	3.3K	5%	1/4W	
R1800	1-249-405-11	CARBON	100	5%	1/4W	
R1801	1-215-439-00	METAL	5.6K	1%	1/4W	
R1802	1-215-439-00	METAL	5.6K	1%	1/4W	
R1803	1-215-439-00	METAL	5.6K	1%	1/4W	
R1805	1-215-439-00	METAL	5.6K	1%	1/4W	
R1806	1-249-405-11	CARBON	100	5%	1/4W	
R1807	1-249-405-11	CARBON	100	5%	1/4W	
R1808	1-214-792-00	METAL	1	1%	1/2W	
R1809	1-214-792-00	METAL	1	1%	1/2W	
R1810	1-214-792-00	METAL	1	1%	1/2W	
R1811	1-214-792-00	METAL	1	1%	1/2W	
R1812	1-214-792-00	METAL	1	1%	1/2W	
R1813	1-214-792-00	METAL	1	1%	1/2W	
R1814	1-249-431-11	CARBON	15K	5%	1/4W	
R1815	1-247-885-00	CARBON	180K	5%	1/4W	
R1816	1-249-431-11	CARBON	15K	5%	1/4W	
R1817	1-247-885-00	CARBON	180K	5%	1/4W	
R1818	1-249-405-11	CARBON	100	5%	1/4W	
R1819	1-215-437-00	METAL	4.7K	1%	1/4W	
R1820	1-215-437-00	METAL	4.7K	1%	1/4W	
R1821	1-215-437-00	METAL	4.7K	1%	1/4W	
R1822	1-215-445-00	METAL	10K	1%	1/4W	
R1823	1-215-445-00	METAL	10K	1%	1/4W	
R1824	1-215-433-00	METAL	3.3K	1%	1/4W	
R1825	1-215-433-00	METAL	3.3K	1%	1/4W	
R1826	1-215-433-00	METAL	3.3K	1%	1/4W	
R1827	1-215-445-00	METAL	10K	1%	1/4W	
R1828	1-215-445-00	METAL	10K	1%	1/4W	
R1829	1-249-434-11	CARBON	27K	5%	1/4W	
R1830	1-249-434-11	CARBON	27K	5%	1/4W	
R1831	1-249-405-11	CARBON	100	5%	1/4W	
R1832	1-215-471-00	METAL	120K	1%	1/4W	
R1833	1-215-471-00	METAL	120K	1%	1/4W	
R1834	1-215-471-00	METAL	120K	1%	1/4W	
R1835	1-215-437-00	METAL	4.7K	1%	1/4W	
R1836	1-215-437-00	METAL	4.7K	1%	1/4W	
R1837	1-215-421-00	METAL	1K	1%	1/4W	
R1838	1-249-431-11	CARBON	15K	5%	1/4W	
R1839	1-249-431-11	CARBON	15K	5%	1/4W	
R1858	1-215-445-00	METAL	10K	1%	1/4W	
R1859	1-215-445-00	METAL	10K	1%	1/4W	
R1860	1-215-397-00	METAL	100	1%	1/4W	
R1861	1-215-453-00	METAL	22K	1%	1/4W	
R1862	1-215-453-00	METAL	22K	1%	1/4W	
R1863	1-215-397-00	METAL	100	1%	1/4W	
R1864	1-215-437-00	METAL	4.7K	1%	1/4W	
R1865	1-215-453-00	METAL	22K	1%	1/4W	
R1866	1-215-453-00	METAL	22K	1%	1/4W	
R1867	1-215-437-00	METAL	4.7K	1%	1/4W	
R1868	1-215-439-00	METAL	5.6K	1%	1/4W	
R1869	1-215-445-00	METAL	10K	1%	1/4W	
R1870	1-215-445-00	METAL	10K	1%	1/4W	
R1871	1-215-445-00	METAL	10K	1%	1/4W	
R1872	1-215-437-00	METAL	4.7K	1%	1/4W	
R1873	1-215-437-00	METAL	4.7K	1%	1/4W	
R1874	1-215-437-00	METAL	4.7K	1%	1/4W	
R1875	1-215-437-00	METAL	4.7K	1%	1/4W	
R1876	1-215-437-00	METAL	4.7K	1%	1/4W	
R1877	1-215-437-00	METAL	4.7K	1%	1/4W	
R1878	1-215-475-00	METAL	180K	1%	1/4W	
R1879	1-215-475-00	METAL	180K	1%	1/4W	
R1880	1-215-475-00	METAL	180K	1%	1/4W	
R1881	1-215-461-00	METAL	47K	1%	1/4W	
R1882	1-215-445-00	METAL	10K	1%	1/4W	
R1883	1-215-453-00	METAL	22K	1%	1/4W	
R1884	1-215-397-00	METAL	100	1%	1/4W	
R1885	1-215-445-00	METAL	10K	1%	1/4W	
R1886	1-215-445-00	METAL	10K	1%	1/4W	
R1887	1-215-397-00	METAL	100	1%	1/4W	
R1888	1-215-461-00	METAL	47K	1%	1/4W	
R1889	1-215-457-00	METAL	33K	1%	1/4W	
R1890	1-215-457-00	METAL	33K	1%	1/4W	
R1892	1-215-445-00	METAL	10K	1%	1/4W	
R1894	1-215-429-00	METAL	2.2K	1%	1/4W	
R1895	1-215-445-00	METAL	10K	1%	1/4W	
R1896	1-215-445-00	METAL	10K	1%	1/4W	
R1897	1-215-449-00	METAL	15K	1%	1/4W	
R1898	1-215-445-00	METAL	10K	1%	1/4W	
R1899	1-215-421-00	METAL	1K	1%	1/4W	
R1900	1-215-429-00	METAL	2.2K	1%	1/4W	
R1901	1-215-449-00	METAL	15K	1%	1/4W	
R1902	1-215-445-00	METAL	10K	1%	1/4W	
R1903	1-215-445-00	METAL	10K	1%	1/4W	
R1904	1-215-445-00	METAL	10K	1%	1/4W	
R1905	1-215-445-00	METAL	10K	1%	1/4W	
R1906	1-215-429-00	METAL	2.2K	1%	1/4W	
R1907	1-215-445-00	METAL	10K	1%	1/4W	
R1908	1-215-445-00	METAL	10K	1%	1/4W	
R1909	1-215-445-00	METAL	10K	1%	1/4W	
R1910	1-215-445-00	METAL	10K	1%	1/4W	
R1911	1-215-453-00	METAL	22K	1%	1/4W	
R1916	1-215-423-00	METAL	1.2K	1%	1/4W	
R1920	1-215-453-00	METAL	22K	1%	1/4W	
R1921	1-215-445-00	METAL	10K	1%	1/4W	
R1922	1-215-445-00	METAL	10K	1%	1/4W	
R1924	1-215-429-00	METAL	2.2K	1%	1/4W	
R1925	1-215-429-00	METAL	2.2K	1%	1/4W	
R1926	1-215-429-00	METAL	2.2K	1%	1/4W	
R1927	1-215-445-00	METAL	10K	1%	1/4W	
R1928	1-215-421-00	METAL	1K	1%	1/4W	
R1929	1-215-445-00	METAL	10K	1%	1/4W	
R1930	1-215-397-00	METAL	100	1%	1/4W	
R1931	1-215-397-00	METAL	100	1%	1/4W	
R1932	1-215-453-00	METAL	22K	1%	1/4W	
R1933	1-215-453-00	METAL	22K	1%	1/4W	
R1934	1-215-429-00	METAL	2.2K	1%	1/4W	
R1937	1-215-445-00	METAL	10K	1%	1/4W	

<VARIABLE RESISTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
RV901	1-241-631-11	RES, ADJ, CARBON 22K	
RV902	1-241-631-11	RES, ADJ, CARBON 22K	
RV903	1-241-631-11	RES, ADJ, CARBON 22K	
RV904	1-241-631-11	RES, ADJ, CARBON 22K	
RV905	1-241-631-11	RES, ADJ, CARBON 22K	

REF.NO.	PART NO.	DESCRIPTION	REMARK
RV906	1-241-631-11	RES, ADJ, CARBON 22K	
RV907	1-241-631-11	RES, ADJ, CARBON 22K	
RV908	1-241-631-11	RES, ADJ, CARBON 22K	
RV909	1-241-631-11	RES, ADJ, CARBON 22K	
RV910	1-241-631-11	RES, ADJ, CARBON 22K	
RV911	1-241-627-11	RES, ADJ, CARBON 1K	
RV912	1-241-631-11	RES, ADJ, CARBON 22K	
RV913	1-238-023-11	RES, ADJ, CARBON 470K	
RV914	1-241-630-11	RES, ADJ, CARBON 10K	
RV915	1-241-630-11	RES, ADJ, CARBON 10K	
RV916	1-241-631-11	RES, ADJ, CARBON 22K	
RV917	1-241-631-11	RES, ADJ, CARBON 22K	
RV918	1-241-631-11	RES, ADJ, CARBON 22K	
RV919	1-241-631-11	RES, ADJ, CARBON 22K	
RV920	1-241-631-11	RES, ADJ, CARBON 22K	
RV921	1-241-631-11	RES, ADJ, CARBON 22K	
RV922	1-241-631-11	RES, ADJ, CARBON 22K	
RV923	1-241-631-11	RES, ADJ, CARBON 22K	
RV924	1-241-631-11	RES, ADJ, CARBON 22K	
RV925	1-241-631-11	RES, ADJ, CARBON 22K	
RV926	1-241-631-11	RES, ADJ, CARBON 22K	
RV927	1-241-631-11	RES, ADJ, CARBON 22K	
RV928	1-241-629-11	RES, ADJ, CARBON 4.7K	
RV929	1-241-631-11	RES, ADJ, CARBON 22K	
RV930	1-241-629-11	RES, ADJ, CARBON 4.7K	
RV931	1-241-631-11	RES, ADJ, CARBON 22K	
RV932	1-241-631-11	RES, ADJ, CARBON 22K	
RV933	1-241-631-11	RES, ADJ, CARBON 22K	
RV934	1-241-631-11	RES, ADJ, CARBON 22K	
RV935	1-241-631-11	RES, ADJ, CARBON 22K	
RV936	1-241-631-11	RES, ADJ, CARBON 22K	
RV937	1-241-630-11	RES, ADJ, CARBON 10K	
RV938	1-241-630-11	RES, ADJ, CARBON 10K	
RV939	1-241-630-11	RES, ADJ, CARBON 10K	
RV940	1-241-631-11	RES, ADJ, CARBON 22K	
RV941	1-241-631-11	RES, ADJ, CARBON 22K	
RV942	1-241-631-11	RES, ADJ, CARBON 22K	
RV943	1-241-631-11	RES, ADJ, CARBON 22K	
RV944	1-241-631-11	RES, ADJ, CARBON 22K	
RV945	1-241-631-11	RES, ADJ, CARBON 22K	
RV946	1-241-631-11	RES, ADJ, CARBON 22K	
RV947	1-241-631-11	RES, ADJ, CARBON 22K	
RV948	1-241-631-11	RES, ADJ, CARBON 22K	
RV949	1-241-631-11	RES, ADJ, CARBON 22K	
RV950	1-241-631-11	RES, ADJ, CARBON 22K	
RV951	1-241-631-11	RES, ADJ, CARBON 22K	
RV952	1-241-631-11	RES, ADJ, CARBON 22K	
RV953	1-241-631-11	RES, ADJ, CARBON 22K	
RV954	1-241-631-11	RES, ADJ, CARBON 22K	
RV956	1-241-631-11	RES, ADJ, CARBON 22K	
RV957	1-241-631-11	RES, ADJ, CARBON 22K	
RV958	1-241-631-11	RES, ADJ, CARBON 22K	
RV959	1-241-631-11	RES, ADJ, CARBON 22K	
RV960	1-241-630-11	RES, ADJ, CARBON 10K	
RV961	1-241-631-11	RES, ADJ, CARBON 22K	
RV962	1-241-631-11	RES, ADJ, CARBON 22K	
RV963	1-241-631-11	RES, ADJ, CARBON 22K	
RV964	1-241-631-11	RES, ADJ, CARBON 22K	
RV965	1-241-631-11	RES, ADJ, CARBON 22K	
RV966	1-241-631-11	RES, ADJ, CARBON 22K	
RV967	1-241-631-11	RES, ADJ, CARBON 22K	
RV968	1-241-631-11	RES, ADJ, CARBON 22K	
RV969	1-241-631-11	RES, ADJ, CARBON 22K	
RV970	1-241-631-11	RES, ADJ, CARBON 22K	

REF.NO.	PART NO.	DESCRIPTION	REMARK
RV971	1-241-631-11	RES, ADJ, CARBON 22K	
RV972	1-241-631-11	RES, ADJ, CARBON 22K	
RV973	1-241-631-11	RES, ADJ, CARBON 22K	
RV974	1-241-631-11	RES, ADJ, CARBON 22K	
RV975	1-241-631-11	RES, ADJ, CARBON 22K	
RV976	1-241-631-11	RES, ADJ, CARBON 22K	
RV977	1-241-631-11	RES, ADJ, CARBON 22K	
RV978	1-241-631-11	RES, ADJ, CARBON 22K	
RV979	1-241-631-11	RES, ADJ, CARBON 22K	
RV980	1-241-632-11	RES, ADJ, CARBON 47K	
RV981	1-241-631-11	RES, ADJ, CARBON 22K	
RV982	1-241-631-11	RES, ADJ, CARBON 22K	

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*1-644-278-11 DS BOARD
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<CAPACITOR>

C1745	1-126-101-11	ELECT	100MF	20%	16V
C1746	1-126-101-11	ELECT	100MF	20%	16V
C1747	1-126-101-11	ELECT	100MF	20%	16V
C1748	1-126-101-11	ELECT	100MF	20%	16V
C1750	1-126-233-11	ELECT	22MF	20%	25V
C1751	1-126-101-11	ELECT	100MF	20%	16V
C1752	1-126-233-11	ELECT	22MF	20%	25V
C1753	1-126-233-11	ELECT	22MF	20%	25V
C1851	1-102-074-00	CERAMIC	0.001MF	10%	50V

<CONNECTOR>

DS6	1-691-182-11	CONNECTOR (BOARD TO BOARD) 12P

<IC>

IC1711	8-759-111-69	IC UPC1037HA
IC1712	8-759-602-19	IC M5220L
IC1713	8-759-111-69	IC UPC1037HA

<RESISTOR>

R1840	1-215-445-00	METAL	10K	1%	1/4W
R1841	1-215-433-00	METAL	3.3K	1%	1/4W
R1842	1-215-465-00	METAL	68K	1%	1/4W
R1843	1-215-421-00	METAL	1K	1%	1/4W
R1844	1-215-455-00	METAL	27K	1%	1/4W
R1845	1-215-455-00	METAL	27K	1%	1/4W
R1846	1-215-421-00	METAL	1K	1%	1/4W
R1850	1-215-461-00	METAL	47K	1%	1/4W
R1851	1-215-461-00	METAL	47K	1%	1/4W
R1852	1-215-429-00	METAL	2.2K	1%	1/4W
R1853	1-215-397-00	METAL	100	1%	1/4W
R1854	1-215-429-00	METAL	2.2K	1%	1/4W
R1855	1-215-397-00	METAL	100	1%	1/4W
R1940	1-215-445-00	METAL	10K	1%	1/4W
R1941	1-215-433-00	METAL	3.3K	1%	1/4W
R1942	1-215-421-00	METAL	1K	1%	1/4W
R1943	1-215-465-00	METAL	68K	1%	1/4W
R1944	1-215-421-00	METAL	1K	1%	1/4W
R1945	1-215-455-00	METAL	27K	1%	1/4W
R1946	1-215-455-00	METAL	27K	1%	1/4W

<VARIABLE RESISTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
RV983	1-241-630-11	RES, ADJ, CARBON 10K	
RV984	1-241-630-11	RES, ADJ, CARBON 10K	

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REF.NO.	PART NO.	DESCRIPTION	REMARK
	*A-1346-097-A	D0 BOARD, COMPLETE (KPR-S46MN1)	
		******************	
	*A-1346-096-A	D0 BOARD, COMPLETE (KPR-S53MN1)	
		******************	
	4-363-414-00	SPACER, MICA	
	4-382-854-11	SCREW (M3X10), P, SW (+)	

<CAPACITOR>

REF.NO.	PART NO.	DESCRIPTION				REMARK
C1301	1-126-233-11	ELECT	22MF	20%	50V	
C1302	1-136-153-00	FILM	0.01MF	5%	50V	
C1303	1-136-153-00	FILM	0.01MF	5%	50V	
C1304	1-136-153-00	FILM	0.01MF	5%	50V	
C1305	1-136-153-00	FILM	0.01MF	5%	50V	
C1306	1-136-153-00	FILM	0.01MF	5%	50V	
C1307	1-130-202-00	FILM	0.022MF	10%	200V	
C1308	1-123-024-21	ELECT	33MF		160V	
C1309	1-106-383-00	MYLAR	0.047MF		200V	
C1310	1-123-024-21	ELECT	33MF		160V	
C1311	1-102-973-00	CERAMIC	100PF	5%	50V	
C1312	1-124-042-51	ELECT	0.47MF	20%	50V	
C1313	1-106-383-00	MYLAR	0.047MF		200V	
C1314	1-102-030-00	CERAMIC	330PF	10%	500V	
C1315	1-124-662-11	ELECT	220MF	20%	50V	
C1316	1-136-153-00	FILM	0.01MF	5%	50V	
C1317	1-126-233-11	ELECT	22MF	20%	50V	
C1318	1-124-662-11	ELECT	220MF	20%	50V	
C1319	1-136-598-11	FILM	3MF	5%	200V	
C1320	1-136-565-11	FILM	0.015MF	3%	1.4KV	
C1321	1-124-662-11	ELECT	220MF	20%	50V	
C1322	1-124-122-11	ELECT	100MF	20%	50V	
C1323	1-130-483-00	MYLAR	0.01MF	5%	50V	
C1324	1-130-483-00	MYLAR	0.01MF	5%	50V	
C1325	1-124-122-11	ELECT	100MF	20%	50V	
C1326	1-102-824-00	CERAMIC	470PF	5%	50V	
C1327	1-130-483-00	MYLAR	0.01MF	5%	50V	
C1328	1-102-824-00	CERAMIC	470PF	5%	50V	
C1329	1-102-824-00	CERAMIC	470PF	5%	50V	
C1330	1-102-824-00	CERAMIC	470PF	5%	50V	
C1331	1-130-483-00	MYLAR	0.01MF	5%	50V	
C1332	1-130-483-00	MYLAR	0.01MF	5%	50V	
C1333	1-102-824-00	CERAMIC	470PF	5%	50V	
C1334	1-102-824-00	CERAMIC	470PF	5%	50V	
C1338	1-136-153-00	FILM	0.01MF	5%	50V	
C1339	1-136-153-00	FILM	0.01MF	5%	50V	
C1340	1-136-153-00	FILM	0.01MF	5%	50V	
C1341	1-101-004-00	CERAMIC	0.01MF		50V	

<CONNECTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
CN1302	*1-564-514-11	PLUG, CONNECTOR 11P	
CN1303	*1-564-508-11	PLUG, CONNECTOR 5P	
CN1304	*1-564-513-11	PLUG, CONNECTOR 10P	
CN1305	*1-564-513-11	PLUG, CONNECTOR 10P	
CN1306	*1-691-291-11	PIN, CONNECTOR (PC BOARD) 5P	
CN1307	*1-508-784-00	PIN, CONNECTOR (5MM PITCH) 1P	
CN1308	*1-691-291-11	PIN, CONNECTOR (PC BOARD) 5P	
CN1309	*1-691-291-11	PIN, CONNECTOR (PC BOARD) 5P	

<DIODE>

REF.NO.	PART NO.	DESCRIPTION	REMARK
D1301	8-719-911-19	DIODE 1SS119	
D1302	8-719-911-19	DIODE 1SS119	
D1303	8-719-971-20	DIODE ERC38-06	
D1304	8-719-971-20	DIODE ERC38-06	
D1305	8-719-911-19	DIODE 1SS119	
D1306	8-719-300-80	DIODE RU-1C	
D1307	8-719-109-88	DIODE RD5.6ES-B1	
D1308	8-719-970-89	DIODE DD50R	
D1309	8-719-900-95	DIODE V09G (KPR-S46MN1)	
D1310	8-719-900-95	DIODE V09G (KPR-S46MN1)	

<IC>

REF.NO.	PART NO.	DESCRIPTION	REMARK
IC1301	8-752-057-18	IC CXA1315P	
IC1302	8-759-145-58	IC UPC4558C	
IC1303	8-759-912-77	IC LM324N	

<COIL>

REF.NO.	PART NO.	DESCRIPTION	REMARK
L1304	1-460-196-11	COIL, HORIZONTAL LINEARITY	

<TRANSISTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
Q1301	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q1302	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q1303	8-729-201-32	TRANSISTOR 2SA1013-O	
Q1304	8-729-201-32	TRANSISTOR 2SA1013-O	
Q1305	8-729-119-80	TRANSISTOR 2SC2688-LK	
Q1306	8-729-304-92	TRANSISTOR 2SB649A-C	
Q1307	8-729-204-16	TRANSISTOR 2SA1301-O	
Q1308	8-729-014-88	TRANSISTOR 2SC4891-CA	
Q1309	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q1310	8-729-202-02	TRANSISTOR 2SB1015-Y	
Q1311	8-729-231-60	TRANSISTOR 2SD1406-YGR	
Q1312	8-729-202-02	TRANSISTOR 2SB1015-Y	
Q1313	8-729-231-60	TRANSISTOR 2SD1406-YGR	
Q1314	8-729-202-02	TRANSISTOR 2SB1015-Y	
Q1315	8-729-231-60	TRANSISTOR 2SD1406-YGR	

<RESISTOR>

REF.NO.	PART NO.	DESCRIPTION				REMARK
R1301	1-249-431-11	CARBON	15K	5%	1/4W	
R1302	1-249-431-11	CARBON	15K	5%	1/4W	
R1305	1-249-434-11	CARBON	27K	5%	1/4W	
R1306	1-249-434-11	CARBON	27K	5%	1/4W	
R1307	1-249-417-11	CARBON	1K	5%	1/4W	
R1309	1-249-427-11	CARBON	6.8K	5%	1/4W	
R1310	1-249-427-11	CARBON	6.8K	5%	1/4W	
R1311	1-249-427-11	CARBON	6.8K	5%	1/4W	
R1312	1-249-427-11	CARBON	6.8K	5%	1/4W	
R1313	1-249-429-11	CARBON	10K	5%	1/4W	
R1314	1-249-405-11	CARBON	100	5%	1/4W	
R1315	1-249-405-11	CARBON	100	5%	1/4W	
R1316	1-249-436-11	CARBON	39K	5%	1/4W	
R1317	1-249-417-11	CARBON	1K	5%	1/4W	
R1318	1-249-377-11	CARBON	0.47	5%	1/4W	F
R1319	1-216-489-11	METAL OXIDE	27K	5%	3W	F
R1320	1-247-895-00	CARBON	470K	5%	1/4W	
R1321	1-249-377-11	CARBON	0.47	5%	1/4W	F
R1323	1-247-717-11	CARBON	2.2K	5%	1/4W	F
R1324	1-249-432-11	CARBON	18K	5%	1/4W	F
R1325	1-249-429-11	CARBON	10K	5%	1/4W	
R1326	1-249-423-11	CARBON	3.3K	5%	1/4W	

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

REF.NO.	PART NO.	DESCRIPTION				REMARK
R1327	1-249-417-11	CARBON	1K	5%	1/4W	
R1328	1-249-407-11	CARBON	150	5%	1/4W	
R1329	1-249-417-11	CARBON	1K	5%	1/4W	F
R1330	1-249-427-11	CARBON	6.8K	5%	1/4W	F
R1331	1-249-429-11	CARBON	10K	5%	1/4W	F
R1332	1-216-485-11	METAL OXIDE	5.6K	5%	3W	F
R1333	1-249-422-11	CARBON	2.7K	5%	1/4W	F
R1334	1-215-925-11	METAL OXIDE	22K	5%	3W	F
R1335	1-216-393-00	METAL OXIDE	2.2	5%	3W	F
R1336	1-249-385-11	CARBON	2.2	5%	1/4W	F
R1337	1-215-925-11	METAL OXIDE	22K	5%	3W	F
R1338	1-249-421-11	CARBON	2.2K	5%	1/4W	
R1339	1-249-385-11	CARBON	2.2	5%	1/4W	F
R1340	1-215-911-11	METAL OXIDE	100	5%	3W	F
R1341	1-249-385-11	CARBON	2.2	5%	1/4W	F
R1342	1-249-432-11	CARBON	18K	5%	1/4W	
R1343	1-249-417-11	CARBON	1K	5%	1/4W	
R1344	1-216-476-11	METAL OXIDE	180	5%	3W	F (KPR-S46MN1)
R1345	1-215-912-11	METAL OXIDE	150	5%	3W	F (KPR-S46MN1)
R1346	1-215-912-11	METAL OXIDE	150	5%	3W	F (KPR-S46MN1)
R1347	1-216-476-11	METAL OXIDE	180	5%	3W	F (KPR-S46MN1)
R1348	1-249-432-11	CARBON	18K	5%	1/4W	
R1349	1-249-417-11	CARBON	1K	5%	1/4W	
R1350	1-249-417-11	CARBON	1K	5%	1/4W	
R1351	1-249-417-11	CARBON	1K	5%	1/4W	
R1352	1-215-423-00	METAL	1.2K	1%	1/4W	
R1353	1-215-445-00	METAL	10K	1%	1/4W	
R1354	1-249-417-11	CARBON	1K	5%	1/4W	
R1355	1-215-445-00	METAL	10K	1%	1/4W	
R1356	1-215-445-00	METAL	10K	1%	1/4W	
R1358	1-215-375-00	METAL	12	1%	1/4W	
R1359	1-215-375-00	METAL	12	1%	1/4W	
R1360	1-215-375-00	METAL	12	1%	1/4W	
R1361	1-215-445-00	METAL	10K	1%	1/4W	
R1362	1-215-445-00	METAL	10K	1%	1/4W	
R1363	1-215-423-00	METAL	1.2K	1%	1/4W	
R1364	1-215-423-00	METAL	1.2K	1%	1/4W	
R1365	1-215-445-00	METAL	10K	1%	1/4W	
R1366	1-249-417-11	CARBON	1K	5%	1/4W	
R1367	1-215-445-00	METAL	10K	1%	1/4W	
R1368	1-215-445-00	METAL	10K	1%	1/4W	
R1370	1-215-375-00	METAL	12	1%	1/4W	
R1371	1-215-375-00	METAL	12	1%	1/4W	
R1372	1-215-375-00	METAL	12	1%	1/4W	
R1373	1-215-445-00	METAL	10K	1%	1/4W	
R1374	1-249-417-11	CARBON	1K	5%	1/4W	
R1375	1-215-445-00	METAL	10K	1%	1/4W	
R1376	1-215-445-00	METAL	10K	1%	1/4W	
R1378	1-215-375-00	METAL	12	1%	1/4W	
R1379	1-215-375-00	METAL	12	1%	1/4W	
R1380	1-215-375-00	METAL	12	1%	1/4W	
R1381	1-215-445-00	METAL	10K	1%	1/4W	
R1382	1-216-485-11	METAL OXIDE	5.6K	5%	3W	F
R1383	1-215-911-11	METAL OXIDE	100	5%	3W	F
R1384	1-216-475-11	METAL OXIDE	120	5%	3W	F
R1385	1-216-474-11	METAL OXIDE	82	5%	3W	F
R1386	1-125-421-00	METAL	1K	1%	1/4W	
R1387	1-125-421-00	METAL	1K	1%	1/4W	
R1388	1-125-421-00	METAL	1K	1%	1/4W	

<TRANSFORMER>

REF.NO.	PART NO.	DESCRIPTION	REMARK
T1301⚠	1-439-545-11	TRANSFORMER, FERRITE	
T1302⚠	1-437-078-11	TRANSFORMER, HORIZONTAL DRIVE	

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*A-1347-062-A V BOARD, COMPLETE
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<CAPACITOR>

REF.NO.	PART NO.	DESCRIPTION				REMARK
C01	1-126-101-11	ELECT	100MF	20%	16V	
C02	1-163-038-00	CERAMIC CHIP	0.1MF		25V	
C03	1-124-120-11	ELECT	220MF	20%	16V	
C04	1-163-038-00	CERAMIC CHIP	0.1MF		25V	
C05	1-124-120-11	ELECT	220MF	20%	16V	
C06	1-163-038-00	CERAMIC CHIP	0.1MF		25V	
C07	1-163-093-00	CERAMIC CHIP	10PF	5%	50V	
C08	1-163-097-00	CERAMIC CHIP	15PF	5%	50V	
C09	1-163-141-00	CERAMIC CHIP	0.001MF	5%	50V	
C10	1-163-038-00	CERAMIC CHIP	0.1MF		25V	
C11	1-163-038-00	CERAMIC CHIP	0.1MF		25V	
C12	1-163-038-00	CERAMIC CHIP	0.1MF		25V	
C13	1-163-038-00	CERAMIC CHIP	0.1MF		25V	
C14	1-126-101-11	ELECT	100MF	20%	16V	
C15	1-124-927-11	ELECT	4.7MF	20%	50V	
C16	1-163-141-00	CERAMIC CHIP	0.001MF	5%	50V	
C17	1-163-141-00	CERAMIC CHIP	0.001MF	5%	50V	
C23	1-216-295-00	METAL GLAZE	0	5%	1/10W	
C27	1-163-141-00	CERAMIC CHIP	0.001MF	5%	50V	

<CONNECTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
CN01	*1-565-393-11	CONNECTOR, BOARD TO BOARD	
CN02	*1-565-393-11	CONNECTOR, BOARD TO BOARD	

<DIODE>

REF.NO.	PART NO.	DESCRIPTION	REMARK
D01	8-719-105-92	DIODE RD5.6M-B3	
D03	8-719-914-44	DIODE DAP202K	
D04	8-719-400-18	DIODE MA152WK	
D05	8-719-914-44	DIODE DAP202K	
D06	8-719-400-18	DIODE MA152WK	
D07	8-719-105-52	DIODE RD3.6M-B2	
D14	8-719-800-76	DIODE 1SS226	
D15	8-719-800-76	DIODE 1SS226	

<IC>

REF.NO.	PART NO.	DESCRIPTION	REMARK
IC01	8-759-067-58	IC MAB8461P-W220	
IC02	8-759-067-32	IC SAA5246AP/T	
IC03	8-752-331-22	IC CXK5864BSP-10L	
IC04	8-759-340-13	IC HD14013BP	

<COIL>

REF.NO.	PART NO.	DESCRIPTION		REMARK
L01	1-410-322-11	INDUCTOR	3.3UH	
L02	1-408-407-00	INDUCTOR	6.8UH	
L03	1-408-407-00	INDUCTOR	6.8UH	
L04	1-408-407-00	INDUCTOR	6.8UH	

<IC LINK>

REF.NO.	PART NO.	DESCRIPTION	REMARK
PS01⚠	1-532-679-91	LINK, IC 0.6A	

V **H1**

<TRANSISTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
Q01	8-729-900-53	TRANSISTOR DTC114EK	
Q02	8-729-209-15	TRANSISTOR 2SD2012	
Q03	8-729-100-66	TRANSISTOR 2SC1623-L6	
Q04	8-729-100-66	TRANSISTOR 2SC1623-L6	
Q05	8-729-230-46	TRANSISTOR 2SA1162-YG	
Q06	8-729-230-46	TRANSISTOR 2SA1162-YG	
Q07	8-729-230-46	TRANSISTOR 2SA1162-YG	
Q08	8-729-100-66	TRANSISTOR 2SC1623-L6	

<RESISTOR>

REF.NO.	PART NO.	DESCRIPTION				REMARK
JR01	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR02	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR03	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR04	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR05	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR06	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR07	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR08	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR09	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR10	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR11	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR12	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR13	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR14	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR15	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR17	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR18	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR24	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR28	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR29	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR31	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR32	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR33	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR36	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR37	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR39	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR40	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR41	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR208	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR209	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR210	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR224	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R01	1-218-326-11	METAL GLAZE	470	5%	1/2W	
R02	1-216-214-00	METAL GLAZE	4.7K	5%	1/8W	
R03	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R04	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R05	1-216-047-00	METAL GLAZE	820	5%	1/10W	
R07	1-216-083-00	METAL GLAZE	27K	5%	1/10W	
R08	1-216-071-00	METAL GLAZE	8.2K	5%	1/10W	
R09	1-216-308-00	METAL GLAZE	4.7	5%	1/10W	
R10	1-218-325-11	METAL GLAZE	120	5%	1/4W	
R11	1-218-325-11	METAL GLAZE	120	5%	1/4W	
R12	1-218-325-11	METAL GLAZE	120	5%	1/4W	
R13	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R14	1-216-001-00	METAL GLAZE	10	5%	1/10W	
R15	1-216-013-00	METAL GLAZE	33	5%	1/10W	
R16	1-216-013-00	METAL GLAZE	33	5%	1/10W	
R17	1-216-013-00	METAL GLAZE	33	5%	1/10W	
R18	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R19	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R21	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R22	1-216-296-00	METAL GLAZE	0	5%	1/8W	
R23	1-216-214-00	METAL GLAZE	4.7K	5%	1/8W	
R24	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R25	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R26	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R29	1-216-121-00	METAL GLAZE	1M	5%	1/10W	
R30	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R31	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W	
R32	1-216-678-11	METAL CHIP	13K	0.50%	1/10W	
R33	1-216-083-00	METAL GLAZE	27K	5%	1/10W	
R34	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R35	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R36	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R37	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R38	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R39	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R40	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R41	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R42	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R44	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R46	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R47	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R48	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R49	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R50	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R51	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R52	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R59	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R60	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R62	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	

<VARIABLE RESISTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
RV01	1-241-627-11	RES, ADJ, CARBON 1K	

<CRYSTAL>

REF.NO.	PART NO.	DESCRIPTION	REMARK
X01	1-579-266-31	CRYSTAL VIBRATOR	
X03	1-577-082-11	VIBRATOR, CERAMIC	

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*1-645-440-11 H1 BOARD
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REF.NO.	PART NO.	DESCRIPTION	REMARK
	4-033-777-01	HOLDER, LED	
	*4-374-987-01	GUIDE, LIGHT	
	4-381-686-01	BRACKET (B), LIGHT GUIDE	

<CAPACITOR>

REF.NO.	PART NO.	DESCRIPTION				REMARK
C2100	1-124-907-11	ELECT	10MF	20%	50V	
C2101	1-102-114-00	CERAMIC	470PF	10%	50V	
C2102	1-124-907-11	ELECT	10MF	20%	50V	

<CONNECTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
CN2100	*1-564-517-11	PLUG, CONNECTOR 2P	
CN2101	*1-564-524-11	PLUG, CONNECTOR 9P	

<DIODE>

REF.NO.	PART NO.	DESCRIPTION	REMARK
D2100	8-719-812-41	DIODE TLR124	
D2101	8-719-812-41	DIODE TLR124	
D2102	8-719-812-41	DIODE TLR124	
D2103	8-719-812-41	DIODE TLR124	
D2104	8-719-812-41	DIODE TLR124	

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

REF.NO.	PART NO.	DESCRIPTION				REMARK

<IC>

IC2100	8-741-148-33	IC SBX1483-59			

<TRANSISTOR>

Q2100	8-729-900-80	TRANSISTOR DTC114ES			
Q2101	8-729-900-80	TRANSISTOR DTC114ES			
Q2102	8-729-900-80	TRANSISTOR DTC114ES			
Q2103	8-729-900-80	TRANSISTOR DTC114ES			
Q2104	8-729-900-80	TRANSISTOR DTC114ES			

<RESISTOR>

R2100	1-249-405-11	CARBON	100	5%	1/4W
R2101	1-249-405-11	CARBON	100	5%	1/4W
R2102	1-249-418-11	CARBON	1.2K	5%	1/4W
R2103	1-249-413-11	CARBON	470	5%	1/4W
R2104	1-249-413-11	CARBON	470	5%	1/4W
R2105	1-249-413-11	CARBON	470	5%	1/4W
R2106	1-249-413-11	CARBON	470	5%	1/4W
R2107	1-249-413-11	CARBON	470	5%	1/4W
R2108	1-249-416-11	CARBON	820	5%	1/4W
R2109	1-249-415-11	CARBON	680	5%	1/4W
R2110	1-249-414-11	CARBON	560	5%	1/4W
R2111	1-249-413-11	CARBON	470	5%	1/4W

<SWITCH>

S2100	1-572-198-11	SWITCH, TACTIL			
S2101	1-572-198-11	SWITCH, TACTIL			
S2102	1-572-198-11	SWITCH, TACTIL			
S2103	1-572-198-11	SWITCH, TACTIL			
S2104	1-572-198-11	SWITCH, TACTIL			

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*A-1371-870-A H3 BOARD, COMPLETE
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<CONNECTOR>

CN091	*1-580-689-11	PIN, CONNECTOR (PC BOARD) 4P			
CN092	*1-580-689-11	PIN, CONNECTOR (PC BOARD) 4P			

<SWITCH>

S095	⚠.1-692-293-11	SWITCH, PUSH (AC POWER)(1 KEY)			

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*A-1371-871-A H2 BOARD, COMPLETE
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<CAPACITOR>

C2200	1-101-004-00	CERAMIC	0.01MF		50V
C2201	1-126-177-11	ELECT	100MF	20%	10V
C2202	1-126-177-11	ELECT	100MF	20%	10V
C2203	1-126-160-11	ELECT	1MF	20%	50V
C2204	1-126-160-11	ELECT	1MF	20%	50V
C2205	1-124-907-11	ELECT	10MF	20%	50V
C2206	1-124-907-11	ELECT	10MF	20%	50V
C2207	1-136-169-00	FILM	0.22MF	5%	50V
C2208	1-124-910-11	ELECT	47MF	20%	50V
C2209	1-124-907-11	ELECT	10MF	20%	50V
C2210	1-124-907-11	ELECT	10MF	20%	50V
C2211	1-124-927-11	ELECT	4.7MF	20%	50V
C2212	1-124-927-11	ELECT	4.7MF	20%	50V
C2213	1-124-927-11	ELECT	4.7MF	20%	50V
C2214	1-124-927-11	ELECT	4.7MF	20%	50V
C2215	1-124-927-11	ELECT	4.7MF	20%	50V
C2216	1-124-910-11	ELECT	47MF	20%	50V
C2217	1-124-927-11	ELECT	4.7MF	20%	50V
C2218	1-124-907-11	ELECT	10MF	20%	50V
C2219	1-126-101-11	ELECT	100MF	20%	16V

<CONNECTOR>

CN2200	*1-564-517-11	PLUG, CONNECTOR 2P			
CN2201	*1-564-519-11	PLUG, CONNECTOR 4P			
CN2202	*1-564-525-11	PLUG, CONNECTOR 10P			
CN2203	*1-564-526-31	PLUG, CONNECTOR 11P			
CN2204	1-564-523-11	PLUG, CONNECTOR 8P			
CN2205	*1-564-520-11	PLUG, CONNECTOR 5P			
CN2206	*1-564-519-11	PLUG, CONNECTOR 4P			
CN2207	*1-564-522-11	PLUG, CONNECTOR 7P			

<DIODE>

D2200	8-719-108-12	DIODE RD9.1E-W			
D2201	8-719-108-12	DIODE RD9.1E-W			
D2202	8-719-110-36	DIODE RD13ES-B2			
D2203	8-719-108-12	DIODE RD9.1E-W			
D2204	8-719-108-12	DIODE RD9.1E-W			
D2205	8-719-108-12	DIODE RD9.1E-W			
D2208	8-719-110-57	DIODE RD22ES-B2			
D2209	8-719-110-57	DIODE RD22ES-B2			
D2210	8-719-110-57	DIODE RD22ES-B2			
D2211	8-719-110-57	DIODE RD22ES-B2			
D2212	8-719-110-57	DIODE RD22ES-B2			
D2213	8-719-110-57	DIODE RD22ES-B2			
D2214	8-719-110-57	DIODE RD22ES-B2			
D2215	8-719-110-57	DIODE RD22ES-B2			
D2216	8-719-110-57	DIODE RD22ES-B2			
D2217	8-719-110-57	DIODE RD22ES-B2			
D2218	8-719-110-57	DIODE RD22ES-B2			
D2219	8-719-110-57	DIODE RD22ES-B2			
D2220	8-719-110-57	DIODE RD22ES-B2			
D2221	8-719-110-57	DIODE RD22ES-B2			
D2222	8-719-110-57	DIODE RD22ES-B2			
D2223	8-719-110-57	DIODE RD22ES-B2			

<IC>

IC2200	8-759-145-27	IC UPC1406HA			
IC2201	8-759-145-57	IC UPC4557C			

<JACK>

J2200	1-565-931-11	TERMINAL BLOCK, S 3P			
J2201	1-691-293-11	JACK			
J2202	1-691-293-11	JACK			

<TRANSISTOR>

Q2200	8-729-320-62	TRANSISTOR 2SD789-34			
Q2201	8-729-320-62	TRANSISTOR 2SD789-34			
Q2202	8-729-320-62	TRANSISTOR 2SD789-34			

H2 **J**

REF.NO.	PART NO.	DESCRIPTION				REMARK
Q2203	8-729-320-62	TRANSISTOR 2SD789-34				
Q2204	8-729-119-76	TRANSISTOR 2SA1175-HFE				
Q2205	8-729-119-78	TRANSISTOR 2SC2785-HFE				
		<RESISTOR>				
R2200	1-249-415-11	CARBON	680	5%	1/4W	F
R2201	1-260-087-81	CARBON	100	5%	1/2W	
R2202	1-260-087-81	CARBON	100	5%	1/2W	
R2203	1-249-415-11	CARBON	680	5%	1/4W	F
R2204	1-249-428-11	CARBON	8.2K	5%	1/4W	
R2205	1-247-804-11	CARBON	75	5%	1/4W	
R2206	1-247-804-11	CARBON	75	5%	1/4W	
R2207	1-249-425-11	CARBON	4.7K	5%	1/4W	
R2208	1-247-804-11	CARBON	75	5%	1/4W	
R2209	1-249-425-11	CARBON	4.7K	5%	1/4W	
R2210	1-247-883-00	CARBON	150K	5%	1/4W	
R2211	1-249-423-11	CARBON	3.3K	5%	1/4W	
R2212	1-249-425-11	CARBON	4.7K	5%	1/4W	
R2213	1-247-883-00	CARBON	150K	5%	1/4W	
R2214	1-249-417-11	CARBON	1K	5%	1/4W	
R2215	1-249-417-11	CARBON	1K	5%	1/4W	
R2216	1-249-420-11	CARBON	1.8K	5%	1/4W	
R2217	1-249-425-11	CARBON	4.7K	5%	1/4W	
R2218	1-249-417-11	CARBON	1K	5%	1/4W	
R2219	1-249-406-11	CARBON	120	5%	1/4W	
R2220	1-249-425-11	CARBON	4.7K	5%	1/4W	
R2221	1-249-417-11	CARBON	1K	5%	1/4W	
R2222	1-249-429-11	CARBON	10K	5%	1/4W	
R2223	1-249-406-11	CARBON	120	5%	1/4W	
R2224	1-249-429-11	CARBON	10K	5%	1/4W	
R2225	1-249-437-11	CARBON	47K	5%	1/4W	
R2226	1-249-417-11	CARBON	1K	5%	1/4W	
R2227	1-249-437-11	CARBON	47K	5%	1/4W	
R2228	1-249-417-11	CARBON	1K	5%	1/4W	
R2229	1-249-437-11	CARBON	47K	5%	1/4W	
R2230	1-247-899-11	CARBON	680K	5%	1/4W	
R2231	1-247-899-11	CARBON	680K	5%	1/4W	
R2232	1-249-437-11	CARBON	47K	5%	1/4W	
R2233	1-249-413-11	CARBON	470	5%	1/4W	
R2234	1-249-425-11	CARBON	4.7K	5%	1/4W	
R2235	1-249-425-11	CARBON	4.7K	5%	1/4W	
R2236	1-249-413-11	CARBON	470	5%	1/4W	
R2237	1-249-437-11	CARBON	47K	5%	1/4W	
R2238	1-249-435-11	CARBON	33K	5%	1/4W	
R2239	1-249-437-11	CARBON	47K	5%	1/4W	
R2240	1-249-429-11	CARBON	10K	5%	1/4W	
		<SWITCH>				
S2200	1-554-949-21	SWITCH, SLIDE				
S2201	1-572-198-11	SWITCH, TACTIL				
S2202	1-572-198-11	SWITCH, TACTIL				
S2203	1-572-198-11	SWITCH, TACTIL				
S2204	1-572-198-11	SWITCH, TACTIL				

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	*A-1388-153-A	J BOARD, COMPLETE *****************
	*4-026-251-00	SPACER, INSULATING
	4-038-648-01	HOLDER, TRANSISTOR

REF.NO.	PART NO.	DESCRIPTION			REMARK
		<CAPACITOR>			
C2301	1-101-004-00	CERAMIC	0.01MF		50V
C2302	1-101-004-00	CERAMIC	0.01MF		50V
C2303	1-101-004-00	CERAMIC	0.01MF		50V
C2304	1-101-004-00	CERAMIC	0.01MF		50V
C2305	1-101-004-00	CERAMIC	0.01MF		50V
C2306	1-126-233-11	ELECT	22MF	20%	25V
C2307	1-126-233-11	ELECT	22MF	20%	25V
C2308	1-126-233-11	ELECT	22MF	20%	25V
C2309	1-126-233-11	ELECT	22MF	20%	25V
C2310	1-126-233-11	ELECT	22MF	20%	25V
C2311	1-126-103-11	ELECT	470MF	20%	16V
C2312	1-126-103-11	ELECT	470MF	20%	16V
C2313	1-124-902-00	ELECT	0.47MF	20%	50V
C2314	1-124-902-00	ELECT	0.47MF	20%	50V
C2315	1-124-902-00	ELECT	0.47MF	20%	50V
C2316	1-124-902-00	ELECT	0.47MF	20%	50V
C2317	1-126-103-11	ELECT	470MF	20%	16V
C2318	1-126-103-11	ELECT	470MF	20%	16V
C2319	1-124-902-00	ELECT	0.47MF	20%	50V
C2320	1-124-902-00	ELECT	0.47MF	20%	50V
C2321	1-126-103-11	ELECT	470MF	20%	16V
C2322	1-126-103-11	ELECT	470MF	20%	16V
C2323	1-124-902-00	ELECT	0.47MF	20%	50V
C2324	1-124-902-00	ELECT	0.47MF	20%	50V
C2325	1-124-903-11	ELECT	1MF	20%	50V
C2326	1-124-903-11	ELECT	1MF	20%	50V
C2327	1-124-903-11	ELECT	1MF	20%	50V
C2328	1-124-903-11	ELECT	1MF	20%	50V
C2329	1-124-903-11	ELECT	1MF	20%	50V
C2330	1-124-903-11	ELECT	1MF	20%	50V
C2331	1-136-165-00	FILM	0.1MF	5%	50V
C2332	1-136-165-00	FILM	0.1MF	5%	50V
C2333	1-130-495-00	MYLAR	0.1MF	5%	50V
C2337	1-102-126-00	CERAMIC	0.0056MF	10%	50V
C2338	1-126-233-11	ELECT	22MF	20%	50V
C2339	1-126-233-11	ELECT	22MF	20%	50V
C2340	1-130-495-00	MYLAR	0.1MF	5%	50V
C2341	1-130-483-00	MYLAR	0.01MF	5%	50V
C2342	1-124-903-11	ELECT	1MF	20%	50V
C2343	1-124-903-11	ELECT	1MF	20%	50V
C2344	1-124-478-11	ELECT	100MF	20%	25V
C2345	1-124-478-11	ELECT	100MF	20%	25V
C2346	1-124-907-11	ELECT	10MF	20%	50V
C2347	1-136-165-00	FILM	0.1MF	5%	50V
		<CONNECTOR>			
CN2301	*1-565-928-11	CONNECTOR (TUB) 30P			
CN2302	*1-566-641-11	CONNECTOR, HINGE (TAB) 18P			
CN2308	*1-564-508-11	PLUG, CONNECTOR 5P			
CN2309	*1-564-509-11	PLUG, CONNECTOR 6P			
CN2310	*1-564-507-11	PLUG, CONNECTOR 4P			
CN2311	*1-564-508-11	PLUG, CONNECTOR 5P			
		<DIODE>			
D2301	8-719-110-13	DIODE RD9.1ES-B2			
D2302	8-719-110-13	DIODE RD9.1ES-B2			
D2303	8-719-110-13	DIODE RD9.1ES-B2			
D2304	8-719-110-13	DIODE RD9.1ES-B2			
D2305	8-719-110-13	DIODE RD9.1ES-B2			

REF.NO.	PART NO.	DESCRIPTION	REMARK
D2306	8-719-110-13	DIODE RD9.1ES-B2	
D2307	8-719-110-13	DIODE RD9.1ES-B2	
D2308	8-719-110-13	DIODE RD9.1ES-B2	
D2309	8-719-110-13	DIODE RD9.1ES-B2	
D2310	8-719-110-13	DIODE RD9.1ES-B2	
D2311	8-719-110-13	DIODE RD9.1ES-B2	
D2312	8-719-110-13	DIODE RD9.1ES-B2	
D2313	8-719-110-13	DIODE RD9.1ES-B2	
D2314	8-719-110-13	DIODE RD9.1ES-B2	
D2315	8-719-110-13	DIODE RD9.1ES-B2	
D2316	8-719-110-13	DIODE RD9.1ES-B2	
D2317	8-719-110-13	DIODE RD9.1ES-B2	
D2318	8-719-110-13	DIODE RD9.1ES-B2	
D2319	8-719-110-13	DIODE RD9.1ES-B2	
D2320	8-719-110-13	DIODE RD9.1ES-B2	
D2321	8-719-110-13	DIODE RD9.1ES-B2	
D2322	8-719-110-13	DIODE RD9.1ES-B2	
D2323	8-719-110-13	DIODE RD9.1ES-B2	
D2324	8-719-110-13	DIODE RD9.1ES-B2	
D2325	8-719-110-13	DIODE RD9.1ES-B2	
D2326	8-719-110-13	DIODE RD9.1ES-B2	
D2327	8-719-110-13	DIODE RD9.1ES-B2	
D2328	8-719-110-13	DIODE RD9.1ES-B2	
D2329	8-719-110-13	DIODE RD9.1ES-B2	
D2330	8-719-110-13	DIODE RD9.1ES-B2	
D2331	8-719-110-13	DIODE RD9.1ES-B2	
D2332	8-719-110-13	DIODE RD9.1ES-B2	
D2333	8-719-911-19	DIODE 1SS119	
D2334	8-719-911-19	DIODE 1SS119	
D2335	8-719-911-19	DIODE 1SS119	
D2336	8-719-911-19	DIODE 1SS119	
D2337	8-719-911-19	DIODE 1SS119	
D2338	8-719-110-57	DIODE RD22ES-B2	
D2339	8-719-110-57	DIODE RD22ES-B2	
D2340	8-719-110-57	DIODE RD22ES-B2	
D2341	8-719-110-57	DIODE RD22ES-B2	
D2342	8-719-110-13	DIODE RD9.1ES-B2	

<IC>

IC2300	8-759-072-99	IC TDA2052	
IC2301	8-759-072-99	IC TDA2052	

<JACK>

J2301	1-573-967-11	BLOCK, (S) TERMINAL	
J2302	1-573-967-11	BLOCK, (S) TERMINAL	
J2303	1-573-971-11	JACK BLOCK, PIN	
J2304	1-573-970-11	BLOCK, (S) TERMINAL	
J2305	1-573-969-11	JACK BLOCK, PIN	

<TRANSISTOR>

Q2300	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q2301	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q2302	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q2303	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q2304	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q2305	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q2306	8-729-900-36	TRANSISTOR DTC124ES	
Q2307	8-729-900-36	TRANSISTOR DTC124ES	

<RESISTOR>

REF.NO.	PART NO.	DESCRIPTION				REMARK
R2301	1-249-403-11	CARBON	68	5%	1/4W	
R2302	1-249-403-11	CARBON	68	5%	1/4W	
R2303	1-249-403-11	CARBON	68	5%	1/4W	
R2304	1-247-804-11	CARBON	75	5%	1/4W	
R2305	1-247-804-11	CARBON	75	5%	1/4W	
R2306	1-247-883-00	CARBON	150K	5%	1/4W	
R2307	1-247-883-00	CARBON	150K	5%	1/4W	
R2308	1-247-804-11	CARBON	75	5%	1/4W	
R2309	1-247-804-11	CARBON	75	5%	1/4W	
R2310	1-247-883-00	CARBON	150K	5%	1/4W	
R2311	1-247-883-00	CARBON	150K	5%	1/4W	
R2312	1-247-804-11	CARBON	75	5%	1/4W	
R2313	1-247-883-00	CARBON	150K	5%	1/4W	
R2314	1-247-883-00	CARBON	150K	5%	1/4W	
R2315	1-249-403-11	CARBON	68	5%	1/4W	
R2316	1-249-403-11	CARBON	68	5%	1/4W	
R2317	1-247-895-00	CARBON	470K	5%	1/4W	
R2318	1-247-895-00	CARBON	470K	5%	1/4W	
R2319	1-247-895-00	CARBON	470K	5%	1/4W	
R2320	1-247-895-00	CARBON	470K	5%	1/4W	
R2321	1-247-895-00	CARBON	470K	5%	1/4W	
R2322	1-249-403-11	CARBON	68	5%	1/4W	
R2323	1-249-403-11	CARBON	68	5%	1/4W	
R2324	1-247-895-00	CARBON	470K	5%	1/4W	
R2325	1-247-895-00	CARBON	470K	5%	1/4W	
R2326	1-247-895-00	CARBON	470K	5%	1/4W	
R2327	1-249-403-11	CARBON	68	5%	1/4W	
R2328	1-249-403-11	CARBON	68	5%	1/4W	
R2329	1-247-895-00	CARBON	470K	5%	1/4W	
R2330	1-247-895-00	CARBON	470K	5%	1/4W	
R2331	1-247-895-00	CARBON	470K	5%	1/4W	
R2332	1-247-895-00	CARBON	470K	5%	1/4W	
R2333	1-247-895-00	CARBON	470K	5%	1/4W	
R2334	1-247-895-00	CARBON	470K	5%	1/4W	
R2335	1-247-895-00	CARBON	470K	5%	1/4W	
R2336	1-247-895-00	CARBON	470K	5%	1/4W	
R2337	1-247-895-00	CARBON	470K	5%	1/4W	
R2338	1-249-421-11	CARBON	2.2K	5%	1/4W	
R2339	1-247-804-11	CARBON	75	5%	1/4W	
R2340	1-247-804-11	CARBON	75	5%	1/4W	
R2341	1-249-425-11	CARBON	4.7K	5%	1/4W	
R2342	1-249-425-11	CARBON	4.7K	5%	1/4W	
R2343	1-249-425-11	CARBON	4.7K	5%	1/4W	
R2344	1-249-425-11	CARBON	4.7K	5%	1/4W	
R2345	1-249-425-11	CARBON	4.7K	5%	1/4W	
R2346	1-249-425-11	CARBON	4.7K	5%	1/4W	
R2347	1-249-421-11	CARBON	2.2K	5%	1/4W	
R2348	1-249-417-11	CARBON	1K	5%	1/4W	
R2349	1-249-417-11	CARBON	1K	5%	1/4W	
R2350	1-249-417-11	CARBON	1K	5%	1/4W	
R2351	1-249-417-11	CARBON	1K	5%	1/4W	
R2352	1-249-389-11	CARBON	4.7	5%	1/4W	F
R2353	1-249-389-11	CARBON	4.7	5%	1/4W	F
R2354	1-249-441-11	CARBON	100K	5%	1/4W	
R2355	1-249-412-11	CARBON	390	5%	1/4W	
R2356	1-249-440-11	CARBON	82K	5%	1/4W	
R2357	1-249-433-11	CARBON	22K	5%	1/4W	
R2358	1-249-412-11	CARBON	390	5%	1/4W	
R2359	1-249-428-11	CARBON	8.2K	5%	1/4W	
R2360	1-249-427-11	CARBON	6.8K	5%	1/4W	
R2361	1-249-437-11	CARBON	47K	5%	1/4W	
R2362	1-249-433-11	CARBON	22K	5%	1/4W	
R2363	1-249-433-11	CARBON	22K	5%	1/4W	
R2364	1-249-433-11	CARBON	22K	5%	1/4W	

REF.NO.	PART NO.	DESCRIPTION				REMARK
R2365	1-249-433-11	CARBON	22K	5%	1/4W	
R2366	1-249-415-11	CARBON	680	5%	1/4W	
R2367	1-249-417-11	CARBON	1K	5%	1/4W	
R2368	1-249-415-11	CARBON	680	5%	1/4W	
R2369	1-249-433-11	CARBON	22K	5%	1/4W	
R2370	1-249-429-11	CARBON	10K	5%	1/4W	
R2371	1-249-417-11	CARBON	1K	5%	1/4W	
R2372	1-249-429-11	CARBON	10K	5%	1/4W	
R2373	1-249-425-11	CARBON	4.7K	5%	1/4W	
R2374	1-249-433-11	CARBON	22K	5%	1/4W	
R2375	1-249-417-11	CARBON	1K	5%	1/4W	
R2381	1-249-417-11	CARBON	1K	5%	1/4W	

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*A-1390-304-A S BOARD, COMPLETE

****

<CAPACITOR>

REF.NO.	PART NO.	DESCRIPTION				REMARK
C3201	1-124-910-11	ELECT	47MF	20%	50V	
C3205	1-124-907-11	ELECT	10MF	20%	50V	
C3217	1-124-907-11	ELECT	10MF	20%	50V	
C3218	1-126-103-11	ELECT	470MF	20%	16V	
C3219	1-124-477-11	ELECT	47MF	20%	25V	
C3221	1-124-907-11	ELECT	10MF	20%	50V	
C3222	1-124-907-11	ELECT	10MF	20%	50V	
C3223	1-130-479-00	MYLAR	0.0047MF	5%	50V	
C3224	1-130-479-00	MYLAR	0.0047MF	5%	50V	
C3225	1-136-177-00	FILM	1MF	5%	50V	
C3226	1-136-177-00	FILM	1MF	5%	50V	
C3227	1-124-907-11	ELECT	10MF	20%	50V	
C3228	1-124-903-11	ELECT	1MF	20%	50V	
C3229	1-124-907-11	ELECT	10MF	20%	50V	
C3230	1-124-907-11	ELECT	10MF	20%	50V	
C3231	1-124-903-11	ELECT	1MF	20%	50V	
C3232	1-124-903-11	ELECT	1MF	20%	50V	
C3233	1-163-157-00	FILM	0.022MF	5%	50V	
C3234	1-124-907-11	ELECT	10MF	20%	50V	
C3235	1-124-903-11	ELECT	1MF	20%	50V	
C3236	1-136-164-00	FILM	0.082MF	5%	50V	
C3237	1-163-157-00	FILM	0.022MF	5%	50V	
C3238	1-124-907-11	ELECT	10MF	20%	50V	
C3239	1-130-491-00	MYLAR	0.047MF	5%	50V	
C3240	1-130-475-00	MYLAR	0.0022MF	5%	50V	
C3241	1-124-907-11	ELECT	10MF	20%	50V	
C3242	1-126-233-11	ELECT	22MF	20%	25V	
C3243	1-136-165-00	FILM	0.1MF	5%	50V	
C3244	1-124-907-11	ELECT	10MF	20%	50V	
C3245	1-126-529-11	ELECT	0.47MF	20%	50V	
C3246	1-164-182-11	CERAMIC CHIP	0.0033MF	10%	50V	
C3247	1-126-529-11	ELECT	0.47MF	20%	50V	
C3248	1-164-182-11	CERAMIC CHIP	0.0033MF	10%	50V	

<CONNECTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
CN3201	*1-691-632-11	CONNECTOR, BOARD TO BOARD 15P	

<DIODE>

REF.NO.	PART NO.	DESCRIPTION	REMARK
D3201	8-719-981-50	DIODE RB-100A	
D3202	8-719-109-97	DIODE RD6.8ES-B2	

<IC>

REF.NO.	PART NO.	DESCRIPTION	REMARK
IC3202	8-752-057-18	IC CXA1315P	
IC3203	8-759-153-08	IC UPC1891ACY	
IC3204	8-759-245-75	IC TA8184P	

<RESISTOR>

REF.NO.	PART NO.	DESCRIPTION				REMARK
JR3206	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR3207	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR3208	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR3209	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR3210	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR3211	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR3213	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR3214	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR3217	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R3201	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R3202	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R3210	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R3212	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R3213	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R3215	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R3218	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R3220	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R3223	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R3228	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R3229	1-216-085-00	METAL GLAZE	33K	5%	1/10W	
R3230	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R3231	1-216-085-00	METAL GLAZE	33K	5%	1/10W	
R3232	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R3233	1-216-085-00	METAL GLAZE	33K	5%	1/10W	
R3234	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W	
R3235	1-216-063-00	METAL GLAZE	3.9K	5%	1/10W	
R3238	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R3239	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R3240	1-216-085-00	METAL GLAZE	33K	5%	1/10W	
R3241	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W	
R3242	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R3243	1-216-085-00	METAL GLAZE	33K	5%	1/10W	
R3244	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R3245	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R3246	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R3247	1-216-119-00	METAL GLAZE	820K	5%	1/10W	
R3248	1-216-063-00	METAL GLAZE	3.9K	5%	1/10W	
R3249	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R3251	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R3252	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R3253	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R3254	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R3256	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R3259	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R3260	1-216-049-00	METAL GLAZE	1K	5%	1/10W	

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*A-1390-334-A ZR BOARD, COMPLETE

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<CAPACITOR>

REF.NO.	PART NO.	DESCRIPTION				REMARK
C1901	1-162-115-00	CERAMIC	330PF	10%	2KV	
C1902	1-162-115-00	CERAMIC	330PF	10%	2KV	

ZR **ZG** **ZB** **N**

<RESISTOR>

REF.NO.	PART NO.	DESCRIPTION				REMARK
R1901	1-202-822-00	SOLID	2.2K	20%	1/2W	
R1902	1-202-822-00	SOLID	2.2K	20%	1/2W	
R1903	1-249-414-11	CARBON	560	5%	1/4W	
R1904	1-249-414-11	CARBON	560	5%	1/4W	

<CONNECTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
ZR1	*1-564-522-11	PLUG, CONNECTOR 7P	
ZR2	*1-564-518-11	PLUG, CONNECTOR 3P	
ZR18	*1-691-292-11	PIN, CONNECTOR (PC BOARD) 3P	

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*A-1390-337-A ZG BOARD, COMPLETE
****

<CAPACITOR>

REF.NO.	PART NO.	DESCRIPTION				REMARK
C1911	1-162-115-00	CERAMIC	330PF	10%	2KV	
C1912	1-162-115-00	CERAMIC	330PF	10%	2KV	

<RESISTOR>

REF.NO.	PART NO.	DESCRIPTION				REMARK
R1911	1-202-822-00	SOLID	2.2K	20%	1/2W	
R1912	1-202-822-00	SOLID	2.2K	20%	1/2W	
R1913	1-249-414-11	CARBON	560	5%	1/4W	
R1914	1-249-414-11	CARBON	560	5%	1/4W	

<CONNECTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
ZG2	*1-564-523-11	PLUG, CONNECTOR 8P	
ZG19	*1-691-292-11	PIN, CONNECTOR (PC BOARD) 3P	

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*A-1390-342-A ZB BOARD, COMPLETE
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<CAPACITOR>

REF.NO.	PART NO.	DESCRIPTION				REMARK
C1921	1-162-115-00	CERAMIC	330PF	10%	2KV	
C1922	1-162-115-00	CERAMIC	330PF	10%	2KV	

<RESISTOR>

REF.NO.	PART NO.	DESCRIPTION				REMARK
R1921	1-202-822-00	SOLID	2.2K	20%	1/2W	
R1922	1-202-822-00	SOLID	2.2K	20%	1/2W	
R1923	1-249-414-11	CARBON	560	5%	1/4W	
R1924	1-249-414-11	CARBON	560	5%	1/4W	

<CONNECTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
ZB3	*1-564-524-11	PLUG, CONNECTOR 9P	
ZB20	*1-691-292-11	PIN, CONNECTOR (PC BOARD) 3P	

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*A-1394-410-A N BOARD, COMPLETE
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REF.NO.	PART NO.	DESCRIPTION	REMARK
	*4-026-251-00	SPACER, INSULATING	
	*4-039-042-01	SPACER, INSULATING	
	*4-363-146-00	HEAT SINK, V.OUT	
	4-373-137-01	CAP (Z), RUBBER	
	4-382-854-11	SCREW (M3X10), P, SW (+)	
	4-383-023-01	SPACER, MICA	

<CAPACITOR>

REF.NO.	PART NO.	DESCRIPTION				REMARK
C801	1-125-489-00	ELECT(BLOCK)	560MF	20%	200V	
C802	1-123-024-21	ELECT	33MF		160V	
C803	1-136-729-11	FILM	1.5MF	5%	400V	
C804	1-106-383-00	MYLAR	0.047MF		200V	
C805	1-102-030-00	CERAMIC	330PF	10%	500V	
C806	1-136-165-00	FILM	0.1MF	5%	50V	
C807	1-123-875-11	ELECT	10MF	20%	50V	
C808	1-126-183-11	ELECT	1000MF	20%	16V	
C809	1-124-903-11	ELECT	1MF	20%	50V	
C811	1-124-902-00	ELECT	0.47MF	20%	50V	
C812	1-102-973-00	CERAMIC	100PF	5%	50V	
C813	1-102-244-00	CERAMIC	220PF	10%	500V	
C814	1-106-391-12	MYLAR	0.1MF	10%	200V	
C815	1-106-343-00	MYLAR	0.001MF	10%	200V	
C816	1-124-907-11	ELECT	10MF	20%	50V	
C817	1-124-119-00	ELECT	330MF	20%	16V	
C818	1-102-824-00	CERAMIC	470PF	5%	50V	
C819	1-124-907-11	ELECT	10MF	20%	50V	
C820	1-124-907-11	ELECT	10MF	20%	50V	
C821	1-124-907-11	ELECT	10MF	20%	50V	
C822	1-124-034-51	ELECT	33MF	20%	16V	
C823	1-124-907-11	ELECT	10MF	20%	50V	
C828	1-124-907-11	ELECT	10MF	20%	50V	
C829	1-124-034-51	ELECT	33MF	20%	16V	
C830	1-124-907-11	ELECT	10MF	20%	50V	
C831	1-106-220-00	MYLAR	0.1MF	10%	100V	
C832	1-124-907-11	ELECT	10MF	20%	50V	
C833	1-126-233-11	ELECT	22MF	20%	50V	
C834	1-102-121-00	CERAMIC	0.0022MF	10%	50V	
C835	1-124-927-11	ELECT	4.7MF	20%	50V	
C836	1-130-475-00	MYLAR	0.0022MF	5%	50V	
C837	1-136-169-00	FILM	0.22MF	5%	50V	
C838	1-130-475-00	MYLAR	0.0022MF	5%	50V	
C839	1-102-106-00	CERAMIC	100PF	10%	50V	
C840	1-136-807-11	FILM	0.018MF	3%	1.6KV	
C841	1-136-729-11	FILM	1.5MF	5%	400V	
C842	1-130-471-00	MYLAR	0.001MF	5%	50V	
C844	1-106-391-12	MYLAR	0.1MF	10%	200V	
C850	1-136-169-00	FILM	0.22MF	5%	50V	
C851	1-124-907-11	ELECT	10MF	20%	50V	
C852	1-124-907-11	ELECT	10MF	20%	50V	
C853	1-106-220-00	MYLAR	0.1MF	10%	100V	
C854	1-124-913-11	ELECT	470MF	20%	50V	
C855	1-124-514-11	ELECT	100MF	20%	50V	
C856	1-162-114-00	CERAMIC	0.0047MF		2KV	
C858	1-124-119-00	ELECT	330MF	20%	16V	
C888	1-124-464-11	ELECT	0.22MF	20%	50V	

<DIODE>

REF.NO.	PART NO.	DESCRIPTION	REMARK
D801	8-719-928-08	DIODE ERD28-08S	
D802	8-719-300-80	DIODE RU-1C	
D803	8-719-109-85	DIODE RD5.1ES-B2	
D804	8-719-911-19	DIODE 1SS119	
D805	8-719-911-19	DIODE 1SS119	
D806	8-719-109-85	DIODE RD5.1ES-B2	
D807	8-719-109-85	DIODE RD5.1ES-B2	
D808	8-719-911-19	DIODE 1SS119	
D809	8-719-911-19	DIODE 1SS119	
D810	8-719-911-19	DIODE 1SS119	
D814	8-719-911-19	DIODE 1SS119	
D815	8-719-110-36	DIODE RD13ES-B2	

N

- The components identified by ⧓ in this manual have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation. Should replacement be required, replace only with the value originally used.

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

REF.NO.	PART NO.	DESCRIPTION	REMARK
D817	8-719-945-80	DIODE ERC06-15S	
D818	8-719-911-19	DIODE 1SS119	
D820	8-719-911-19	DIODE 1SS119	
D850	8-719-109-71	DIODE RD3.9ES-B1	
D851 ⚠.	8-719-903-09	DIODE V30N	
D852	8-719-911-19	DIODE 1SS119	
D853 ⚠.	8-719-903-09	DIODE V30N	
D891	8-719-110-49	DIODE RD18ES-B2	
D892	8-719-110-49	DIODE RD18ES-B2	
		<IC>	
IC801	8-759-231-58	IC TA7812S	
IC802	8-759-103-93	IC UPC393C	
IC803	8-759-990-82	IC TL082CP	
IC804	8-759-103-93	IC UPC393C	
IC805	8-759-100-75	IC UPC1394C	
		<COIL>	
L801	1-459-862-11	COIL, CHOKE 90UH	
L802 ⚠.	1-424-603-11	COIL, CHOKE 1.05MMH	
L803	1-459-155-00	COIL (WITH CORE) 45UH	
L804	1-408-421-00	INDUCTOR 100UH	
L805 ⚠.	1-424-603-11	COIL, CHOKE 1.05MMH	
		<CONNECTOR>	
N2	*1-564-508-11	PLUG, CONNECTOR 5P	
N3	*1-508-766-00	PIN, CONNECTOR (5MM PITCH) 4P	
N4	*1-564-507-11	PLUG, CONNECTOR 4P	
N5	*1-564-508-11	PLUG, CONNECTOR 5P	
N6	*1-508-786-00	PIN, CONNECTOR (5MM PITCH) 2P	
N7	*1-508-765-00	PIN, CONNECTOR (5MM PITCH) 3P	
N10	*1-564-511-11	PLUG, CONNECTOR 8P	
N22	*1-564-507-11	PLUG, CONNECTOR 4P	
N30	*1-508-784-00	PIN, CONNECTOR (5MM PITCH) 1P	
N851	*1-506-371-00	PIN, CONNECTOR 2P	
N853	*1-506-371-00	PIN, CONNECTOR 2P	
		<NEON LAMP>	
NL801	1-519-108-99	LAMP, NEON	
		<TRANSISTOR>	
Q801	8-729-201-62	TRANSISTOR 2SC2555-2	
Q802	8-729-119-80	TRANSISTOR 2SC2688-LK	
Q803	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q804	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q806	8-729-119-80	TRANSISTOR 2SC2688-LK	
Q808	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q809	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q811	8-729-805-07	TRANSISTOR 2SD1887-CA	
Q812	8-729-019-88	TRANSISTOR 2SC3675-CB	
Q820	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q851	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q852	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q853	8-729-820-98	TRANSISTOR 2SC4256CB	
		<RESISTOR>	
R801	1-216-378-11	METAL OXIDE 5.6 5% 2W	F
R802	1-215-926-00	METAL OXIDE 33K 5% 3W	F
R803	1-215-926-00	METAL OXIDE 33K 5% 3W	F

REF.NO.	PART NO.	DESCRIPTION	REMARK
R804	1-249-429-11	CARBON 10K 5% 1/4W	
R805	1-249-423-11	CARBON 3.3K 5% 1/4W	
R806	1-249-425-11	CARBON 4.7K 5% 1/4W	
R807	1-249-441-11	CARBON 100K 5% 1/4W	
R808	1-249-417-11	CARBON 1K 5% 1/4W	
R809	1-249-417-11	CARBON 1K 5% 1/4W	
R811	1-249-421-11	CARBON 2.2K 5% 1/4W	
R812	1-249-420-11	CARBON 1.8K 5% 1/4W	F
R813	1-215-921-11	METAL OXIDE 4.7K 5% 3W	F
R814	1-249-409-11	CARBON 220 5% 1/4W	
R815	1-249-415-11	CARBON 680 5% 1/4W	F
R817	1-215-475-00	METAL 180K 1% 1/4W	
R818	1-215-474-00	METAL 160K 1% 1/4W	
R819	1-215-450-00	METAL 16K 1% 1/4W	
R820	1-215-451-00	METAL 18K 1% 1/4W	
R821	1-249-423-11	CARBON 3.3K 5% 1/4W	
R822	1-249-433-11	CARBON 22K 5% 1/4W	
R823	1-249-429-11	CARBON 10K 5% 1/4W	
R824	1-215-469-00	METAL 100K 1% 1/4W	
R825	1-215-453-00	METAL 22K 1% 1/4W	
R826	1-214-962-00	METAL 820K 1% 1/4W	
R827	1-215-456-00	METAL 30K 1% 1/4W	
R828	1-215-455-00	METAL 27K 1% 1/4W	
R829	1-215-455-00	METAL 27K 1% 1/4W	
R830	1-215-928-11	METAL OXIDE 68K 5% 3W	F
R831	1-215-928-11	METAL OXIDE 68K 5% 3W	F
R832	1-249-417-11	CARBON 1K 5% 1/4W	
R833	1-249-419-11	CARBON 1.5K 5% 1/4W	
R834	1-249-419-11	CARBON 1.5K 5% 1/4W	
R835	1-215-429-00	METAL 2.2K 1% 1/4W	
R836	1-215-435-00	METAL 3.9K 1% 1/4W	
R837	1-249-433-11	CARBON 22K 5% 1/4W	
R838	1-249-435-11	CARBON 33K 5% 1/4W	
R839	1-249-438-11	CARBON 56K 5% 1/4W	
R840	1-249-434-11	CARBON 27K 5% 1/4W	
R841	1-249-429-11	CARBON 10K 5% 1/4W	
R842	1-249-435-11	CARBON 33K 5% 1/4W	
R843	1-249-429-11	CARBON 10K 5% 1/4W	
R847	1-214-761-00	METAL 22K 1% 1/4W	
R848	1-215-429-00	METAL 2.2K 1% 1/4W	
R849	1-215-421-00	METAL 1K 1% 1/4W	
R850	1-215-429-00	METAL 2.2K 1% 1/4W	
R851	1-215-404-00	METAL 200 1% 1/4W	
⧓R852 ⚠.		METAL 1/4W	
R855	1-215-469-00	METAL 100K 1% 1/4W	
R856	1-249-430-11	CARBON 12K 5% 1/4W	
R857	1-249-433-11	CARBON 22K 5% 1/4W	
R858	1-249-413-11	CARBON 470 5% 1/4W	
R859	1-249-435-11	CARBON 33K 5% 1/4W	
R860	1-249-441-11	CARBON 100K 5% 1/4W	
R861	1-249-421-11	CARBON 2.2K 5% 1/4W	
R862	1-249-434-11	CARBON 27K 5% 1/4W	
R863	1-249-431-11	CARBON 15K 5% 1/4W	
R864	1-249-428-11	CARBON 8.2K 5% 1/4W	
R865	1-249-440-11	CARBON 82K 5% 1/4W	
R866	1-249-436-11	CARBON 39K 5% 1/4W	
R867	1-249-437-11	CARBON 47K 5% 1/4W	
R868	1-249-428-11	CARBON 8.2K 5% 1/4W	
R869	1-249-429-11	CARBON 10K 5% 1/4W	
R870	1-249-417-11	CARBON 1K 5% 1/4W	
R871	1-249-440-11	CARBON 82K 5% 1/4W	
R872	1-249-423-11	CARBON 3.3K 5% 1/4W	
R873	1-249-441-11	CARBON 100K 5% 1/4W	

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

REF.NO.	PART NO.	DESCRIPTION				REMARK
R874	1-249-435-11	CARBON	33K	5%	1/4W	
R875	1-249-421-11	CARBON	2.2K	5%	1/4W	
R876	1-215-426-00	METAL	1.6K	1%	1/4W	
R877	1-249-435-11	CARBON	33K	5%	1/4W	
R878	1-249-441-11	CARBON	100K	5%	1/4W	
R879	1-215-925-11	METAL OXIDE	22K	5%	3W	F
R880	1-249-429-11	CARBON	10K	5%	1/4W	
R881	1-214-761-00	METAL	22K	1%	1/4W	
R882	1-249-433-11	CARBON	22K	5%	1/4W	
R883	1-249-417-11	CARBON	1K	5%	1/4W	
R884	1-215-894-11	METAL OXIDE	2.2K	5%	2W	F
R885	1-249-438-11	CARBON	56K	5%	1/4W	
R886	1-249-414-11	CARBON	560	5%	1/4W	
R887	1-215-397-00	METAL	100	1%	1/4W	
R888	1-249-410-11	CARBON	270	5%	1/4W	
R889	1-249-417-11	CARBON	1K	5%	1/4W	
R890	1-249-431-11	CARBON	15K	5%	1/4W	
R891	1-215-925-11	METAL OXIDE	22K	5%	3W	F
R892	1-249-417-11	CARBON	1K	5%	1/4W	F
R893	1-215-453-00	METAL	22K	1%	1/4W	
R894	1-249-401-11	CARBON	47	5%	1/4W	
R895	1-202-731-00	SOLID	10M	20%	1/2W	
R896	1-260-111-11	CARBON	10K	5%	1/2W	
R897	1-247-881-00	CARBON	120K	5%	1/4W	
R898	1-202-730-00	SOLID	8.2M	20%	1/2W	
R899	1-249-429-11	CARBON	10K	5%	1/4W	
R903	1-247-735-11	SOLID	47	20%	1/2W	
R904	1-215-911-11	METAL OXIDE	100	5%	3W	F
R905	1-215-928-11	METAL OXIDE	68K	5%	3W	F

<VARIABLE RESISTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
RV901	1-241-631-11	RES, ADJ, CARBON 22K	
RV902	1-241-631-11	RES, ADJ, CARBON 22K	

<SPARK GAP>

REF.NO.	PART NO.	DESCRIPTION	REMARK
SG801	1-519-422-11	GAP, SPARK	

<TRANSFORMER>

REF.NO.	PART NO.	DESCRIPTION	REMARK
T801	⚠.1-437-078-11	TRANSFORMER, HORIZONTAL DRIVE	
T802	⚠.1-437-090-21	HDT	
T803	⚠.1-453-121-11	TRANSFORMER ASSY, FLYBACK (NX-2630B4)	

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MISCELLANEOUS

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REF.NO.	PART NO.	DESCRIPTION	REMARK
	⚠.1-241-744-11	RESISTOR ASSY (HIGH-VOLTAGE)	
	⚠.1-251-027-11	DISTRIBUTOR	
	⚠.1-451-396-11	DEFLECTION YOKE (Y936PA)	
	⚠.1-452-443-13	NECK ASSY, PICTURE TUBE (NA367)	
	⚠.1-453-108-11	DC BLOCK, HIGH-VOLTAGE	
	1-504-141-11	SPEAKER (13CM)	
	1-544-580-21	SPEAKER (2.5CM)	
	*1-555-110-00	CABLE, PIN	
	⚠.1-574-062-12	CORD, POWER (WITH CONNECTOR)	
	⚠.8-736-631-05	PICTURE TUBE(SD-249 (G))	
	⚠.8-736-632-05	PICTURE TUBE(SD-249 (B))	
	⚠.8-736-633-05	PICTURE TUBE(SD-249 (R))	

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ACCESSORIES AND PACKING MATERIALS

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<KPR-S46MN1>

REF.NO.	PART NO.	DESCRIPTION	REMARK
	1-466-779-11	ADAPTOR, CHANGE	
	1-466-780-11	ADAPTOR, CHANGE	
	*3-674-673-01	STOPPER (A)	
	3-755-929-11	MANUAL, INSTRUCTION	
	*3-756-459-11	INSTRUCTION	
	*4-039-125-01	PLATE, TOP	
	*4-039-126-01	PANEL	
	*4-039-127-01	LID	
	*4-039-128-01	PLATE, BOTTOM	
	*4-039-159-01	CUSHION (UPPER) (ASSY)	
	*4-039-160-01	CUSHION (LOWER) (ASSY)	
	*4-388-954-01	BAG, PROTECTION	

<KPR-S53MN1>

REF.NO.	PART NO.	DESCRIPTION	REMARK
	1-466-779-11	ADAPTOR, CHANGE	
	1-466-780-11	ADAPTOR, CHANGE	
	*3-674-673-01	STOPPER (A)	
	3-755-929-11	MANUAL, INSTRUCTION	
	*3-756-459-11	INSTRUCTION	
	*4-038-904-01	PLATE, TOP	
	*4-038-905-01	PANEL	
	*4-038-906-01	LID	
	*4-038-907-01	PLATE, BOTTOM	
	*4-038-908-01	CUSHION (UPPER) (ASSY)	
	*4-038-909-01	CUSHION (LOWER) (ASSY)	
	*4-038-954-01	BAG, PROTECTION	

REMOTE COMMANDER

REF.NO.	PART NO.	DESCRIPTION	REMARK
	1-693-173-11	REMOTE COMMANDER (RM-821)	
	9-998-214-11	COVER, BATTERY (FOR RM-821)	
	9-998-277-21	COVER (FOR RM-821)	